



Fish Passage Center Weekly Report #07 - 3

March 23, 2007

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Summary of Events:

Water Supply: Precipitation throughout the Columbia Basin has varied between 19% and 221% of average at individual sub-basins over the first 19-days of March. Precipitation above The Dalles has been 112% of average over the first 19-days of March. Over the entire water year, precipitation has generally been near or above 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 2007 March 1-19		Water Year 2007 October 1, 2006 to March 19, 2007	
	Observed (inches)	% Average	Observed (inches)	% Average
	Columbia Above Coulee	1.99	181	15.49
SNAKE RIVER Above Ice Harbor	0.36	35	8.48	88
Columbia Above The Dalles	1.32	112	14.68	108
Kootenai	2.41	221	17.17	124
Clark Fork	0.56	76	9.29	109
Flathead	0.85	85	12.32	107
Pend Oreille/Spokane	1.68	99	19.10	100
Central Washington	0.10	19	5.48	98
SNAKE RIVER Plain	0.23	33	4.74	84
Salmon/Boise/Payette	0.32	27	10.76	90
Clearwater	0.88	51	18.43	105
SW Washington Cascades/Cowlitz	4.32	100	54.43	107
Willamette Valley	2.51	64	48.3	113

Snowpack within the Columbia Basin is below average. Average snowpack in the Columbia River for basins above the Snake River confluence is 85% of average, for Snake River Basins the average snowpack is 65% of average, and for lower Columbia Basins between McNary and Bonneville Dam average snowpack is 75% of average.

Table 2 displays the March Final and March Mid-month runoff volume forecasts for multiple reservoirs. Water Supply Forecasts increased slightly between the March Final and March Mid-month forecasts at most Columbia Basins; however, decreased several percent in Snake Basins. The current forecast at The Dalles between January and July is 101000 Kaf (94% of average).

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

Location	March Final		March Mid-month	
	% Average (1971-2000)	Probable Runoff Volume (Kaf)	% Average (1971-2000)	Probable Runoff Volume (Kaf)
The Dalles (Jan-July)	93	100000	94	101000
Grand Coulee (Jan-July)	100	63000	102	64400
Libby Res. Inflow, MT (Jan-July)	100	6320	105	6610
Hungry Horse Res. Inflow, MT (Jan-July)	91	2030	90	2010
Lower Granite Res. Inflow (Apr-July)	80	17300	75	16100
Brownlee Res. Inflow (Apr-July)	60	3760	57	3580
Dworshak Res. Inflow (Apr-July)	96	2530	91	2410

Grand Coulee Reservoir is at 1273.7 feet (3-22-07) and has drafted 3.2 feet in the last week. The end of March shifted FC elevation at Grand Coulee is 1272.5 feet and the estimated April 10th elevation is 1259.2 feet.

Dworshak is currently at an elevation of 1557.3 feet (3-22-07) and refilled 6.1 feet last week; outflows at Dworshak increased above the 1.5 Kcfs minimum on March 20th and are currently 7.7 Kcfs. The end of March FC shifted FC elevation at Dworshak is 1560.3 feet and the estimated April 10th elevation is 1567.8 feet. On March 21st, 2007, SOR-2007-4 was submitted to the Action Agencies and asked for operators to cautiously increase outflows from Dworshak Dam to insure that the April 10th elevation target is met.

The Libby Reservoir is currently at elevation 2392.0 feet (3-22-07) and refilled 2.0 feet last week. The end of March VarQ FC elevation at Libby is 2395.5 feet, the estimated April 10th elevation is 2395.5 feet at Libby. Outflows remain at the 4.0 Kcfs minimum.

Hungry Horse is currently at an elevation of 3534.1 feet (3-22-07) and has refilled 1.8 feet last week. Outflows at Hungry Horse have been 0.9-2.7 Kcfs last week. Hungry Horse's end of March VarQ FC elevation is 3535.1 feet, the estimated April 10th elevation is 3533.4 feet at Hungry Horse.

The Brownlee Reservoir was at an elevation of 2055.2 feet on March 22nd, 2007, drafting 1.0 foot last week. The end of March FC elevation is 2057.4 feet, the estimated April 10th elevation is 2059.5 feet at Brownlee Dam. Outflows at Brownlee Dam have been 14.4 to 19.5 Kcfs over the last week.

Spill: A low tailwater (12-feet from 1200-1600 hours and 13-feet from 1600-1800 hours) below Bonneville Dam on March 23 (originally scheduled for March 22) is necessary to accomplish the removal of Washington shore fishway staff gages, complete a dive at the B2CC plunge pool and allow PNNL researchers the opportunity to recover in-gravel piezometers and conduct a Chum fry dredging operation. In order to set the river up for this operation water had to be evacuated from the lower River reservoirs, necessitating spill at these projects over the past few days.

Smolt Monitoring: Sampling began at Bonneville Dam on March 1, in anticipation of arrival of subyearling chinook salmon released from Spring Creek Hatchery. Approximately 6.5 million subyearlings were released on March 5 and additional 1.2 million were released on March 9. Based on the sampling data the fish began arriving on March 6, with the peak number passing on March 8, when the passage index reaching 429,000. The numbers declined and by mid-March most of the fish had passed. No spill was provided for Spring Creek fish passage.

Smolt Monitoring at Snake River tributary traps continued this past week, with increasing numbers of yearling chinook being captured at the Grande Ronde, Imnaha, the Salmon River traps. At the Salmon River Trap, operated by IDFG, hatchery yearling chinook dominated the catch over the past week. On March 18, 1005 yearling chinook were captured in the trap, with 570 hatchery origin and 435 wild origin fish. The arrival of these fish at the trap is likely due to warming water temperatures and increased flows in the Salmon River. Flows rose sharply over the past two weeks, and have remained high this past week; flows were near 10,000 cfs all week, compared to historic average of about 5,000 cfs for this time of year. The hatchery fish are likely from a release of 120,000 yearlings that were released in Johnson Creek on March 12. At the Grande Ronde and Imnaha traps the catch of yearling chinook has been steadily increasing over the past week. At the Imnaha Trap almost all fish are unclipped wild origin fish, while at the Grande Ronde Trap, clipped hatchery origin fish predominate. The clipped yearling chinook captured at the Grande Ronde Trap, were likely from a volitional release of 108,000 fish, that began March 10 at Lostine Acclimation Pond.

Sampling will begin March 26 at Lower Granite Dam, while full 24-hour sampling at Little Goose and Lower Monumental dams will begin when transportation begins at those sites. Transportation will begin on a delayed schedule this year similar to 2006. Other sites, such as McNary, John Day and Rock Island dams, will begin sampling at their scheduled dates, April 1.

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. A volitional release of 308,803 yearling spring Chinook began from the Imnaha Acclimation Ponds into the Imnaha River on March 21. Approximately 4.8% of these fish were PIT-tagged for the CSS study. This release is expected to run through April 12. Rapid River Hatchery began a volitional release of approximately 2.5 million yearling spring Chinook on March 15. This release included 51,803 fish that were PIT-tagged for the CSS study and is expected to end in late April. McCall Hatchery in Idaho released approximately 1.1 million yearling summer Chinook into the South Fork of the Salmon River from March 19 to 22. Approximately 52,000 of these fish were PIT-tagged for the CSS study. Finally, a release of approximately 525,000 summer steelhead began on March 19 into the Snake River, just below Hells Canyon Dam.

Over the next two weeks approximately 655,000 yearling fall Chinook are scheduled for release into the Snake River. Approximately 4.62 million yearling spring Chinook are scheduled for release into the Snake River Zone over the next two weeks. Of these yearling spring Chinook releases, approximately 61% are scheduled for release into the Clearwater River, 21% in the Salmon River, 8% into the Lochsa River, 5% into the Wallowa River, and 4% into the Tucannon River. A volitional release of approximately 30,000 Coho is scheduled to begin on April 1 into Orofino Creek, a tributary of the Clearwater River. Finally, approximately 1.66 million summer steelhead are scheduled for release into the Snake River Zone over the next two weeks.

Mid-Columbia Zone: The Mid-Columbia Zone encompasses the area of the Columbia River and its tributaries from McNary Dam to Chief Joseph Dam. There were no known hatchery releases scheduled for this week (Mar 16 - Mar 23).

Approximately 1.3 million yearling spring Chinook, 1.9 million yearling summer Chinook, and 1.1 million summer steelhead are scheduled for release into the Mid-Columbia River Zone begin-

ning in April 2007. Currently, exact dates for these releases are not known but will be updated periodically as data become available. Also scheduled for April are releases of a total of approximately 890,000 Coho into the Yakama River. These releases are part of the Yakama Tribal Program to re-establish Coho runs in the Yakama, Methow, and Wenatchee basins and are currently scheduled for early April.

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 approximately 520,000 yearling spring Chinook began this week (Mar 21) and is expected to run through April 18. This release is from the Warm Springs National Fish Hatchery into the Deschutes River. In addition to the Deschutes River release, a volitional release of approximately 32,000 yearling spring Chinook began on March 22 from the Parkdale Acclimation Facility, on Hood River. This volitional release is scheduled to run into early May (May 4). Any remaining fish from this release are scheduled to be collected, transported, and released into the Columbia River, at the mouth of Hood River.

Volitional releases of approximately 6.5 million Coho into the Klickitat River are scheduled to begin in the Lower Columbia Zone over the next two weeks. An additional 750,000 Coho are scheduled to be released into the Umatilla River on April 1. Also scheduled for release on April 1 are 4,000 summer steelhead into the Deschutes River. Finally, releases of a total of approximately 119,000 summer steelhead and 22,500 winter steelhead are scheduled for April 2007. As with the Mid-Columbia Zone, exact dates for these releases are not known but will be updated periodically as data become available.

Adult Fish Passage: Traditional counts at Bonneville Dam do not begin until March 15th. Traditional counts allow the comparison of current year counts with historical data. The Dalles and John Day began video counts Feb 20th, while McNary, Ice Harbor, and Lower Granite began video counts on March 1st. Traditional counts for these dams begin April 1st with the exception of Lower Granite Dam which begins traditional counts on March 1st. The PUD dams in the Mid-Columbia River traditionally count adult fish beginning April 15th except Wells Dam that starts counting on May 1st. Beginning in 2000, a few COE dams started counting fish during the winter months from January 1st through March 14th. The following paragraph describes these winter counts for 2007 and compares them with 2006 counts.

In the winter months steelhead begin to move through the hydro system to reach their tributaries and spawning sites. At Bonneville Dam, the total steelhead count from Jan 1st through March 14th was 1,677. For the same date range in 2006, the count at Bonneville was 2,523, a -34% percent decrease between the two years. At the up-river sites, the majority of the steelhead over-wintered in the pools and are now completing their trip to their spawning grounds. Traditional counts at Lower Granite began March 1st. The steelhead count at Lower Granite Dam for 2007 through March 20th was 3,399, a 39% percent increase over the 2006 count of 2,068. The 2007 steelhead count at Lower Granite Dam was also an 18% percent increase over the 10-year average count of 2,793. The 2007 Wild Steelhead count at Lower Granite Dam so far this year is 437.

In 2007, the traditional count, beginning March 15th, of Spring Chinook at Bonneville Dam as of March 19th was 9 adults. In 2006 for the same time period only 2 adults had been counted at Bonneville Dam. From March 15th through the March 19th Spring Chinook adults have been counted daily except for one day when no adults were counted. On both the 18th and 19th, three adult Spring Chinook were counted at Bonneville Dam.

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
03/09/07	79.1	0.0	85.8	0.0	86.2	0.0	88.3	0.0	93.3	0.0	100.4	0.0	100.7	0.0
03/10/07	77.2	0.0	72.9	0.0	76.7	0.0	79.6	0.0	82.7	0.0	96.6	0.0	100.1	0.0
03/11/07	56.9	0.0	52.8	0.0	58.9	0.1	63.6	0.0	66.0	0.0	73.9	0.0	77.1	0.0
03/12/07	93.5	0.0	101.0	0.0	99.0	0.0	95.9	0.0	102.7	0.0	94.1	0.0	93.3	0.0
03/13/07	86.2	0.0	77.8	0.0	85.4	0.0	89.1	0.0	102.9	0.0	118.9	0.0	116.1	0.0
03/14/07	89.1	0.0	94.3	0.0	101.5	0.0	102.4	0.0	112.5	0.0	111.3	0.0	108.7	0.0
03/15/07	122.8	0.0	118.9	0.0	121.9	0.1	119.4	0.0	124.2	0.0	126.2	0.1	124.7	0.0
03/16/07	118.9	0.0	124.2	0.0	129.2	4.8	132.2	6.3	136.3	0.0	140.4	8.6	138.9	7.3
03/17/07	105.9	0.0	102.6	0.0	113.4	0.3	112.6	0.0	118.8	0.0	134.3	3.2	143.4	3.0
03/18/07	88.5	0.0	93.0	0.0	99.5	0.0	102.7	0.0	111.3	0.0	125.0	0.0	123.1	0.0
03/19/07	120.2	0.0	111.9	0.0	113.4	0.0	111.0	0.0	117.9	0.0	125.5	0.0	134.5	0.0
03/20/07	118.8	0.0	123.5	0.0	136.8	0.9	141.3	0.0	147.4	0.0	141.6	5.4	134.8	0.0
03/21/07	135.9	0.0	136.8	0.0	139.7	0.0	139.3	0.0	146.0	0.0	158.5	0.0	165.1	0.0
03/22/07	153.0	0.0	147.1	0.0	147.6	0.6	145.0	0.0	149.9	0.0	150.4	3.5	149.2	8.4

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
03/09/07	1.5	0.0	16.6	16.2	39.1	0.0	34.1	1.9	37.0	6.1	33.6	0.0
03/10/07	1.5	0.0	15.5	14.0	31.9	0.0	31.9	2.2	36.8	6.3	38.1	0.0
03/11/07	1.5	0.0	15.5	14.3	31.7	0.0	34.0	1.7	36.2	0.0	33.6	0.0
03/12/07	1.5	0.0	16.4	16.9	39.2	0.3	39.9	1.6	45.6	0.0	42.7	0.0
03/13/07	1.5	0.0	16.0	19.1	54.7	0.0	50.3	8.2	55.3	0.0	54.9	0.0
03/14/07	1.5	0.0	17.4	18.8	56.0	0.0	56.9	15.2	62.9	0.0	61.2	0.0
03/15/07	1.5	0.0	18.0	18.8	54.4	0.0	55.2	13.7	61.7	0.0	60.7	0.0
03/16/07	1.5	0.0	16.9	19.4	46.7	0.0	45.9	0.0	53.4	0.0	51.1	0.0
03/17/07	1.5	0.0	16.1	19.4	47.6	0.0	45.6	0.0	46.4	0.0	46.5	0.0
03/18/07	1.5	0.0	15.3	17.5	47.8	0.0	44.3	0.0	46.3	0.0	42.6	0.0
03/19/07	1.5	0.0	16.3	19.4	53.6	0.8	52.7	0.4	56.5	0.4	54.4	1.2
03/20/07	4.5	0.0	15.1	18.6	55.6	0.0	55.2	0.0	58.0	0.0	56.5	0.0
03/21/07	7.2	0.0	16.4	16.0	64.6	0.0	63.5	0.0	69.1	0.0	68.3	0.0
03/22/07	7.7	0.0	---	---	55.9	0.0	55.7	0.0	57.7	0.0	60.2	0.0

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		
03/09/07	156.4	0.0	163.3	0.0	163.2	0.0	190.2	0.8	76.2	102.6
03/10/07	136.9	0.0	148.8	0.0	145.2	0.0	142.4	1.3	45.4	84.2
03/11/07	105.0	0.0	105.6	0.0	116.7	0.0	145.2	1.4	52.0	80.3
03/12/07	132.1	0.0	142.4	0.0	136.7	0.0	162.6	1.3	59.8	90.0
03/13/07	161.6	0.0	163.1	0.0	163.4	0.0	201.8	1.4	83.2	105.7
03/14/07	185.3	0.3	192.1	0.0	195.6	2.1	214.1	1.4	88.0	113.3
03/15/07	197.1	5.8	209.3	0.0	210.5	0.0	228.2	1.4	98.0	117.4
03/16/07	188.4	6.7	205.2	0.0	209.5	0.0	228.3	1.4	97.1	118.3
03/17/07	201.0	7.1	207.9	0.0	202.0	0.0	218.9	1.4	91.9	114.2
03/18/07	167.6	6.9	181.3	0.0	179.9	0.0	206.6	2.1	91.4	101.5
03/19/07	200.7	7.1	193.5	3.1	200.2	0.8	215.2	1.3	95.8	106.6
03/20/07	186.1	5.7	225.9	31.7	218.9	0.0	240.6	5.8	100.1	123.2
03/21/07	235.7	22.5	263.3	61.2	256.1	0.0	264.7	25.3	102.6	125.2
03/22/07	228.6	12.3	237.3	28.6	248.2	0.0	270.1	34.7	100.0	123.8

HATCHERY RELEASE LAST TWO WEEKS

Hatchery Release Summary

From: **3/9/2007** to **03/22/07**

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
Idaho Dept. of Fish and Game	McCall Hatchery	CH1	SU	2007	1,086,600	03-19-07	03-22-07	S Fk Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Niagara Springs	ST	SU	2007	525,000	03-19-07	03-29-07	Hells Canyon Dam	Snake River
Idaho Dept. of Fish and Game	Rapid River Hatchery	CH1	SP	2007	135,738	03-14-07	03-14-07	Pine Bar/Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Rapid River Hatchery	CH1	SP	2007	350,388	03-12-07	03-15-07	Hells Canyon Dam	Snake River
Idaho Dept. of Fish and Game	Rapid River Hatchery	CH1	SP	2007	2,498,482	03-15-07	04-27-07	Rapid River	Little Salmon River
Idaho Dept. of Fish and Game					4,596,208				
Total									
Nez Perce Tribe	Lookingglass Hatchery	CH1	SP	2007	108,000	03-10-07	03-26-07	Lostine Accim Pond	Wallowa River South Fork Salmon River
Nez Perce Tribe	McCall Hatchery	CH1	SU	2007	120,415	03-12-07	03-14-07	Johnson Cr Idaho	River
Nez Perce Tribe Total					228,415				
Oregon Dept. of Fish and Wildlife	Lookingglass Hatchery	CH1	SP	2007	308,803	03-21-07	04-12-07	Imnaha Acclim Pond	Imnaha River
Oregon Dept. of Fish and Wildlife	Oak Springs Hatchery	ST	SU	2007	31,212	03-14-07	03-15-07	Hood River	Hood River
Oregon Dept. of Fish and Wildlife Total					340,015				
								Warm Springs Hatchery	
U.S. Fish and Wildlife Service	Warm Springs NFH	CH1	SP	2007	520,000	03-21-07	04-18-07		Deschutes River
U.S. Fish and Wildlife Service Total					520,000				
								Thornhollow Acclim Pond	
Umatilla Tribe	Bonneville Hatchery	CH1	FA	2007	236,781	03-09-07	03-14-07		Umatilla River
Umatilla Tribe	Cascade Hatchery	CO	UN	2007	249,732	03-08-07	03-13-07	Umatilla River	Umatilla River
Umatilla Tribe	Lower Herman Cr	CO	UN	2007	511,105	03-08-07	03-13-07	Umatilla River	Umatilla River
Umatilla Tribe Total					997,618				
Warm Springs Tribe	Round Butte Hatchery	CH1	SP	2007	32,000	03-22-07	05-04-07	Parkdale Acclim Pond	Hood River
Warm Springs Tribe Total					32,000				
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2007	281,176	03-15-07	05-15-07	Easton Pond	Yakima River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2007	287,645	03-15-07	05-15-07	Clark Flat Acclim Pond Jack Creek Acclim	Yakima River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2007	291,991	03-15-07	05-15-07	Pond	Yakima River
Yakama Tribe Total					860,812				
Grand Total					7,575,068				

HATCHERY RELEASE NEXT TWO WEEKS

Hatchery Release Summary

From: 3/23/2007 to 4/5/2007

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
Colville Tribe	Eastbank Hatchery	CH1	SU	2007	98,000	04-01-07	04-30-07	Bonaparte Acclimation Pond	Okanogan River
Colville Tribe Total									
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2007	134,000	04-02-07	04-02-07	Crooked R Acclim Pond	S Fk Clearwater River
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2007	374,000	04-04-07	04-04-07	Powell Acclim Pond	Lochsa River
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2007	375,000	04-01-07	04-01-07	Red River Acclim Pond	S Fk Clearwater River
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2007	517,000	04-03-07	04-03-07	Crooked R Acclim Pond	S Fk Clearwater River
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2007	60,000	04-02-07	05-02-07	Squaw Creek	Salmon River (ID)
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2007	125,000	04-02-07	05-02-07	Squaw Creek	Salmon River (ID)
Idaho Dept. of Fish and Game	Niagara Springs	ST	SU	2007	275,000	03-30-07	04-05-07	Little Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Niagara Springs	ST	SU	2007	525,000	03-19-07	03-29-07	Hells Canyon Dam	Snake River
Idaho Dept. of Fish and Game	Rapid River Hatchery	CH1	SP	2007	2,498,482	03-15-07	04-27-07	Rapid River	Little Salmon River
Idaho Dept. of Fish and Game	Sawtooth Hatchery	CH1	SP	2007	50,000	04-04-07	04-27-07	Yankee Fk (Salmon R)	Salmon River (ID)
Idaho Dept. of Fish and Game	Sawtooth Hatchery	CH1	SP	2007	940,000	04-04-07	04-27-07	Salmon River (ID)	Salmon River (ID)
Idaho Dept. of Fish and Game Total					5,873,482				
Nez Perce Tribe	Clearwater Hatchery	CH1	SP	2007	269,000	04-01-07	04-01-07	Selway River Hazard Creek/Little	Clearwater River M F
Nez Perce Tribe	Hagerman NFH	ST	SU	2007	40,000	04-02-07	04-02-07	Salmon R	Little Salmon River
Nez Perce Tribe	Hagerman NFH	ST	SU	2007	145,000	03-26-07	04-06-07	Little Salmon River	Salmon River (ID)
Nez Perce Tribe	Lookingglass Hatchery	CH1	SP	2007	108,000	03-10-07	03-26-07	Lostine Accim Pond	Wallowa River
Nez Perce Tribe	Lookingglass Hatchery	CH1	SP	2007	136,000	03-28-07	04-17-07	Lostine Accim Pond Pittsburg Landing	Wallowa River
Nez Perce Tribe	Lyons Ferry Hatchery	CH1	FA	2007	155,000	04-05-07	04-05-07	Acclim Pond	Snake River
Nez Perce Tribe	Nez Perce Tribal Hatchery	CO	UN	2008	30,000	04-01-07	04-30-07	Orofino Creek	Clearwater River M F
Nez Perce Tribe Total					883,000				
Oregon Dept. of Fish and Wildlife	Lookingglass Hatchery	CH1	SP	2007	308,803	03-21-07	04-12-07	Imnaha Acclim Pond	Imnaha River
Oregon Dept. of Fish and Wildlife	Oak Springs Hatchery	ST	SU	2007	4,000	04-01-07	04-01-07	Deschutes River	Deschutes River
Oregon Dept. of Fish and Wildlife Total					312,803				
U.S. Fish and Wildlife Service	Dworshak NFH	CH1	SP	2007	950,000	03-28-07	03-29-07	Dworshak Hatchery	Clearwater River M F
U.S. Fish and Wildlife Service	Entiat Hatchery	CH1	SP	2007	400,381	04-01-07	04-15-07	Entiat Hatchery	Entiat River
U.S. Fish and Wildlife Service	Hagerman NFH	ST	SU	2007	85,000	04-03-07	04-06-07	Little Salmon River	Salmon River (ID)
U.S. Fish and Wildlife Service	Kooskia NFH	CH1	SP	2007	178,500	03-24-07	04-04-07	Kooskia Hatchery	Clearwater River M F
U.S. Fish and Wildlife Service	Kooskia NFH	CH1	SP	2007	391,500	03-24-07	04-04-07	Kooskia Hatchery Warm Springs	Clearwater River M F
U.S. Fish and Wildlife Service	Warm Springs NFH	CH1	SP	2007	520,000	03-21-07	04-18-07	Hatchery	Deschutes River
U.S. Fish and Wildlife Service Total					2,525,381				
Umatilla Tribe	Cascade Hatchery	CO	UN	2007	750,000	04-01-07	04-01-07	Umatilla River	Umatilla River
Umatilla Tribe Total					750,000				
Warm Springs Tribe	Round Butte Hatchery	CH1	SP	2007	32,000	03-22-07	05-04-07	Parkdale Acclim Pond	Hood River
Warm Springs Tribe Total					32,000				

HATCHERY RELEASE NEXT TWO WEEKS (cont'd)

Washington Dept. of Fish and Wildlife	Chelan Hatchery	CH1	SP	2007	493,000	04-01-07	04-30-07	Chiwawa Hatchery	Wenatchee River
Washington Dept. of Fish and Wildlife	Chiwawa Hatchery	ST	SU	2007	43,000	04-01-07	04-30-07	Chiwawa Hatchery	Wenatchee River
Washington Dept. of Fish and Wildlife	Eastbank Hatchery	CH1	SU	2007	279,000	04-01-07	04-30-07	Similkameen Acclim Pd	Okanogan River
Washington Dept. of Fish and Wildlife	Eastbank Hatchery	CH1	SU	2007	704,000	04-01-07	04-30-07	Dryden Acclim Pond	Wenatchee River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	CH1	FA	2007	500,000	04-01-07	04-30-07	Lyons Ferry Hatchery	Snake River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2007	59,000	04-01-07	04-30-07	Baileysburg Bridge	Touchet River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2007	62,000	04-01-07	04-30-07	Lyons Ferry Hatchery	Snake River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2007	88,000	04-01-07	04-30-07	Dayton Acclim Pond	Touchet River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2007	104,000	04-01-07	04-30-07	Tucannon River	Tucannon River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2007	104,000	04-01-07	04-30-07	Walla Walla River Cottonwood Acclim	Walla Walla River
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	ST	SU	2007	167,000	04-01-07	04-30-07	Pond	Grande Ronde River
Washington Dept. of Fish and Wildlife	Methow Hatchery	CH1	SP	2007	27,000	04-01-07	04-30-07	Twisp Acclim Pond	Methow River
Washington Dept. of Fish and Wildlife	Methow Hatchery	CH1	SP	2007	169,000	04-01-07	04-30-07	Methow River	Methow River
Washington Dept. of Fish and Wildlife	Methow Hatchery	CH1	SP	2007	255,000	04-01-07	04-30-07	Chewuch Acclim Pond	Methow River
Washington Dept. of Fish and Wildlife	Methow Hatchery	CH1	SU	2007	267,000	04-01-07	04-30-07	Methow River Ringold Springs	Methow River
Washington Dept. of Fish and Wildlife	Ringold Springs Hatchery	ST	SU	2007	300,000	04-01-07	04-30-07	Hatchery	Mid-Columbia River
Washington Dept. of Fish and Wildlife	Skamania Hatchery	ST	SU	2007	26,684	04-01-07	04-30-07	White Salmon River	White Salmon River
Washington Dept. of Fish and Wildlife	Skamania Hatchery	ST	SU	2007	92,684	04-01-07	04-30-07	Klickitat River	Klickitat River
Washington Dept. of Fish and Wildlife	Skamania Hatchery	ST	WI	2007	22,500	04-01-07	04-30-07	White Salmon River	White Salmon River
Washington Dept. of Fish and Wildlife	Tucannon Hatchery	CH1	SP	2007	86,000	04-01-07	04-30-07	Tucannon River	Tucannon River
Washington Dept. of Fish and Wildlife	Tucannon Hatchery	CH1	SP	2007	111,000	04-01-07	04-30-07	Tucannon River	Tucannon River
Washington Dept. of Fish and Wildlife	Tucannon Hatchery	ST	SU	2007	70,000	04-01-07	04-30-07	Tucannon River	Tucannon River
Washington Dept. of Fish and Wildlife	Turtle Rock Hatchery	CH1	SU	2007	204,000	04-01-07	04-30-07	Turtle Rock Hatchery	Mid-Columbia River
Washington Dept. of Fish and Wildlife	Turtle Rock Hatchery	ST	SU	2007	36,000	04-01-07	04-30-07	Wenatchee River	Wenatchee River
Washington Dept. of Fish and Wildlife	Turtle Rock Hatchery	ST	SU	2007	95,000	04-01-07	04-30-07	Nason Creek	Wenatchee River
Washington Dept. of Fish and Wildlife	Turtle Rock Hatchery	ST	SU	2007	109,000	04-01-07	04-30-07	Wenatchee River	Wenatchee River
Washington Dept. of Fish and Wildlife	Washougal Hatchery	CO	NO	2007	2,500,000	04-01-07	04-30-07	Klickitat River	Klickitat River
Washington Dept. of Fish and Wildlife	Wells Hatchery	CH1	SU	2007	358,000	04-01-07	04-30-07	Wells Hatchery	Mid-Columbia River
Washington Dept. of Fish and Wildlife	Wells Hatchery	ST	SU	2007	100,000	04-01-07	04-30-07	Twisp River	Methow River
Washington Dept. of Fish and Wildlife	Wells Hatchery	ST	SU	2007	122,500	04-01-07	04-30-07	Chewuch River	Methow River
Washington Dept. of Fish and Wildlife Total					7,554,368				
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2007	281,176	03-15-07	05-15-07	Easton Pond	Yakima River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2007	287,645	03-15-07	05-15-07	Clark Flat Acclim Pond Jack Creek Acclim	Yakima River
Yakama Tribe	Cle Elem Hatchery	CH1	SP	2007	291,991	03-15-07	05-15-07	Pond Lost Creek Acclim	Yakima River
Yakama Tribe	Eagle Creek NFH	CO	UN	2007	25,000	04-02-07	04-02-07	Pond	Yakima River
Yakama Tribe	Eagle Creek NFH	CO	UN	2007	25,000	04-02-07	04-02-07	Stiles Pond	Yakima River
Yakama Tribe	Eagle Creek NFH	CO	UN	2007	25,000	04-02-07	04-02-07	Yakama River	Yakima River
Yakama Tribe	Eagle Creek NFH	CO	UN	2007	25,000	04-02-07	04-02-07	Yakama River	Yakima River
Yakama Tribe	Eagle Creek NFH	CO	UN	2007	50,000	04-02-07	04-02-07	Prosser Acclim Pond Lost Creek Acclim	Yakima River
Yakama Tribe	Eagle Creek NFH	CO	UN	2007	150,000	04-02-07	04-02-07	Pond	Yakima River
Yakama Tribe	Eagle Creek NFH	CO	UN	2007	150,000	04-02-07	04-02-07	Stiles Pond	Yakima River
Yakama Tribe	Eagle Creek NFH	CO	UN	2007	150,000	04-02-07	04-02-07	Yakama River	Yakima River
Yakama Tribe	Klickitat Hatchery	CO	NO	2007	1,000,000	04-01-07	06-29-07	Klickitat Hatchery	Klickitat River
Yakama Tribe	Prosser Acclim. Pond	CO	UN	2007	9,199	04-02-07	04-02-07	Stiles Pond	Yakima River
Yakama Tribe	Prosser Acclim. Pond	CO	UN	2007	30,382	04-02-07	04-02-07	Yakama River	Yakima River
Yakama Tribe	Prosser Acclim. Pond	CO	UN	2007	90,000	04-02-07	04-02-07	Stiles Pond Lost Creek Acclim	Yakima River
Yakama Tribe	Washougal Hatchery	CO	NO	2007	40,000	04-02-07	04-02-07	Pond	Yakima River
Yakama Tribe	Washougal Hatchery	CO	NO	2007	40,000	04-02-07	04-02-07	Stiles Pond	Yakima River
Yakama Tribe	Washougal Hatchery	CO	NO	2007	40,000	04-02-07	04-02-07	Yakama River	Yakima River
Yakama Tribe	Washougal Hatchery	CO	NO	2007	40,000	04-02-07	04-02-07	Yakama River	Yakima River
Yakama Tribe Total					2,750,393				
Grand Total					20,779,427				

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>		
3/9	---	---	---	0	102	103	103	24	102	102	103	24	102	102	104	24	---	---	---	0
3/10	---	---	---	0	102	103	104	24	102	102	103	24	102	102	104	24	---	---	---	0
3/11	---	---	---	0	103	104	105	22	103	103	103	23	103	104	105	22	---	---	---	0
3/12	---	---	---	0	104	104	106	24	103	103	103	24	103	103	105	24	---	---	---	0
3/13	---	---	---	0	104	105	109	24	103	103	103	24	102	102	103	24	---	---	---	0
3/14	---	---	---	0	103	103	104	24	102	102	103	24	102	102	104	24	---	---	---	0
3/15	---	---	---	0	103	104	105	24	102	102	102	24	101	102	104	24	---	---	---	0
3/16	---	---	---	0	104	104	105	24	102	102	103	24	102	102	104	24	---	---	---	0
3/17	---	---	---	0	108	110	112	24	103	103	104	24	103	103	103	24	---	---	---	0
3/18	---	---	---	0	108	110	112	24	103	103	104	24	103	103	104	24	---	---	---	0
3/19	---	---	---	0	108	109	113	24	104	104	104	24	103	104	106	24	---	---	---	0
3/20	---	---	---	0	109	111	112	24	104	104	104	24	103	104	105	24	---	---	---	0
3/21	97	97	98	11	108	111	115	24	102	103	103	24	102	102	104	24	---	---	---	0
3/22	97	97	98	24	106	107	111	24	103	103	104	24	102	102	103	24	---	---	---	0

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>	<u>Avg</u>		
3/9	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/10	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/11	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/12	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/13	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/14	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/15	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/16	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/17	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/18	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/19	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/20	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/21	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/22	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0

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>	<u>Avg</u>		
3/9	---	---	---	0	---	---	---	0	102	102	102	24	102	103	103	24	103	103	104	24
3/10	---	---	---	0	---	---	---	0	102	102	102	24	102	102	103	24	103	103	104	24
3/11	---	---	---	0	---	---	---	0	102	102	103	23	103	103	103	23	104	104	104	23
3/12	---	---	---	0	---	---	---	0	103	103	103	24	103	103	104	24	104	104	104	24
3/13	---	---	---	0	---	---	---	0	102	102	103	24	103	103	103	24	103	103	104	24
3/14	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/15	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/16	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/17	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/18	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/19	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/20	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/21	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/22	---	---	---	0	---	---	---	0	---	---	---	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>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>		
	Avg	Avg	High		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High	
3/9	103	103	103	24	---	---	---	0	103	103	105	24	---	---	---	0	---	---	---	0
3/10	102	103	103	24	---	---	---	0	103	104	104	24	---	---	---	0	---	---	---	0
3/11	103	104	104	24	---	---	---	0	103	104	105	23	---	---	---	0	---	---	---	0
3/12	104	104	104	23	---	---	---	0	103	104	104	24	---	---	---	0	---	---	---	0
3/13	103	103	103	16	---	---	---	0	112	121	129	24	---	---	---	0	---	---	---	0
3/14	---	---	---	0	---	---	---	0	103	103	104	24	---	---	---	0	---	---	---	0
3/15	---	---	---	0	---	---	---	0	117	127	129	22	---	---	---	0	---	---	---	0
3/16	---	---	---	0	---	---	---	0	104	105	105	24	---	---	---	0	---	---	---	0
3/17	---	---	---	0	---	---	---	0	105	106	107	24	---	---	---	0	---	---	---	0
3/18	---	---	---	0	---	---	---	0	105	105	106	24	---	---	---	0	---	---	---	0
3/19	---	---	---	0	---	---	---	0	105	105	106	24	---	---	---	0	---	---	---	0
3/20	---	---	---	0	---	---	---	0	99	102	105	24	---	---	---	0	---	---	---	0
3/21	---	---	---	0	---	---	---	0	95	95	96	21	---	---	---	0	---	---	---	0
3/22	---	---	---	0	---	---	---	0	96	97	97	24	---	---	---	0	---	---	---	0

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>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>		
	Avg	Avg	High		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High	
3/9	---	---	---	0	---	---	---	0	102	102	103	24	---	---	---	0	105	109	115	24
3/10	---	---	---	0	---	---	---	0	104	104	105	24	---	---	---	0	106	112	118	24
3/11	---	---	---	0	---	---	---	0	104	104	105	23	---	---	---	0	104	106	110	23
3/12	---	---	---	0	---	---	---	0	105	105	109	24	---	---	---	0	105	107	112	24
3/13	---	---	---	0	---	---	---	0	103	103	104	24	---	---	---	0	106	109	110	24
3/14	---	---	---	0	---	---	---	0	103	103	103	10	---	---	---	0	109	110	110	24
3/15	---	---	---	0	---	---	---	0	102	102	102	6	---	---	---	0	109	110	111	24
3/16	---	---	---	0	---	---	---	0	102	102	102	24	---	---	---	0	104	104	105	24
3/17	---	---	---	0	---	---	---	0	102	102	102	24	---	---	---	0	104	104	105	24
3/18	---	---	---	0	---	---	---	0	102	102	102	24	---	---	---	0	103	103	104	24
3/19	---	---	---	0	---	---	---	0	103	104	105	24	---	---	---	0	104	104	105	24
3/20	---	---	---	0	102	103	103	15	103	103	104	24	103	103	104	12	103	104	104	24
3/21	---	---	---	0	101	101	102	24	101	102	102	24	102	102	102	24	101	101	101	24
3/22	---	---	---	0	101	101	101	24	101	101	102	24	102	102	103	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>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>			<u>24 h</u>	<u>12 h</u>		
	Avg	Avg	High		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High		Avg	Avg	High	
3/9	---	---	---	0	107	111	111	24	---	---	---	0	102	102	102	24	---	---	---	0
3/10	---	---	---	0	110	112	113	24	---	---	---	0	102	102	102	24	---	---	---	0
3/11	---	---	---	0	105	105	105	23	---	---	---	0	102	103	103	23	---	---	---	0
3/12	---	---	---	0	104	105	106	24	---	---	---	0	103	103	103	24	---	---	---	0
3/13	---	---	---	0	104	104	105	24	---	---	---	0	105	106	107	24	---	---	---	0
3/14	---	---	---	0	104	104	104	24	---	---	---	0	105	106	107	24	---	---	---	0
3/15	---	---	---	0	103	103	103	24	---	---	---	0	104	104	104	24	---	---	---	0
3/16	---	---	---	0	105	105	106	24	---	---	---	0	104	104	105	24	---	---	---	0
3/17	---	---	---	0	107	108	108	24	---	---	---	0	105	105	106	24	---	---	---	0
3/18	---	---	---	0	108	108	109	24	---	---	---	0	105	105	106	24	---	---	---	0
3/19	---	---	---	0	107	108	110	24	---	---	---	0	106	107	113	24	---	---	---	0
3/20	---	---	---	0	105	106	106	24	---	---	---	0	107	107	109	24	---	---	---	0
3/21	---	---	---	0	102	103	103	24	---	---	---	0	106	106	106	24	---	---	---	0
3/22	---	---	---	0	103	103	103	24	106	106	110	11	105	106	106	24	---	---	---	0

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

Total Dissolved Gas Saturation Data at Lower Columbia River Sites

Date	<u>McNary-Wash</u>			<u>McNary Tlwr</u>			<u>John Day</u>			<u>John Day Tlwr</u>			<u>The Dalles</u>							
	<u>24 h</u>	<u>12 h</u>	#	<u>24 h</u>	<u>12 h</u>	#	<u>24h</u>	<u>12h</u>	#	<u>24h</u>	<u>12h</u>	#	<u>24h</u>	<u>12h</u>	#					
	Avg	Avg		High	Avg		Avg	High		Avg	Avg		High	Avg		AVG	High			
3/9	---	---	---	0	103	103	104	24	---	---	---	0	102	102	102	24	---	---	---	0
3/10	---	---	---	0	103	103	103	24	---	---	---	0	102	102	102	24	---	---	---	0
3/11	---	---	---	0	103	103	103	23	---	---	---	0	103	103	103	24	---	---	---	0
3/12	---	---	---	0	103	103	104	24	---	---	---	0	103	103	103	24	---	---	---	0
3/13	---	---	---	0	103	104	104	24	---	---	---	0	103	103	103	24	---	---	---	0
3/14	---	---	---	0	104	104	107	24	---	---	---	0	103	103	103	24	---	---	---	0
3/15	---	---	---	0	106	108	113	24	---	---	---	0	103	103	103	24	---	---	---	0
3/16	---	---	---	0	106	109	114	24	---	---	---	0	103	104	104	24	---	---	---	0
3/17	---	---	---	0	107	110	115	24	---	---	---	0	104	104	104	24	---	---	---	0
3/18	---	---	---	0	107	111	115	24	---	---	---	0	104	104	104	24	---	---	---	0
3/19	---	---	---	0	108	111	114	24	---	---	---	0	106	107	112	24	---	---	---	0
3/20	---	---	---	0	108	110	114	24	---	---	---	0	111	113	113	24	---	---	---	0
3/21	---	---	---	0	110	112	113	24	---	---	---	0	114	114	115	24	---	---	---	0
3/22	---	---	---	0	109	112	113	24	---	---	---	0	108	112	115	24	---	---	---	0

Total Dissolved Gas Saturation Data at Lower Columbia River Sites

Date	<u>The Dalles Dnst</u>			<u>Bonneville</u>			<u>Warrendale</u>			<u>CamasWashougal</u>			<u>Cascade Island</u>							
	<u>24 h</u>	<u>12 h</u>	#	<u>24 h</u>	<u>12 h</u>	#	<u>24h</u>	<u>12h</u>	#	<u>24h</u>	<u>12h</u>	#	<u>24h</u>	<u>12h</u>	#					
	Avg	Avg		High	Avg		Avg	High		Avg	Avg		High	Avg		AVG	High			
3/9	101	101	102	24	102	102	102	24	103	103	104	24	103	104	104	24	109	110	112	24
3/10	101	102	102	24	102	102	102	24	104	105	105	24	103	103	104	24	106	106	107	17
3/11	102	102	103	23	102	103	103	23	105	105	106	23	105	106	107	23	106	107	108	17
3/12	103	103	104	24	103	103	103	24	105	106	106	24	105	106	106	24	109	109	111	17
3/13	102	102	103	24	103	103	103	24	103	103	104	24	104	105	105	24	109	109	110	17
3/14	102	102	103	24	102	102	103	24	103	103	103	24	103	103	104	24	110	111	114	17
3/15	102	103	103	24	102	103	103	24	102	103	103	24	103	103	104	24	114	115	116	17
3/16	103	104	104	24	103	104	104	24	104	104	105	24	104	105	106	24	115	116	116	17
3/17	104	104	105	24	104	105	105	24	104	105	105	24	105	106	106	24	107	107	108	17
3/18	104	104	105	24	105	105	105	24	105	105	105	24	105	106	107	24	109	110	112	17
3/19	105	105	105	24	105	105	105	24	105	105	105	24	106	106	107	24	108	109	111	17
3/20	104	104	105	24	104	104	105	24	103	104	105	24	104	104	105	24	108	109	110	17
3/21	104	105	106	24	102	103	103	24	103	103	105	24	103	104	105	24	110	111	116	17
3/22	107	108	108	24	104	104	105	23	105	105	106	23	105	106	107	23	110	110	114	16

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)
03/09/2007	0	0	0	0	---	---	---	---	---	---	0
03/10/2007	0	0	0	0	---	---	---	---	---	---	0
03/11/2007	0	0	0	0	---	---	---	---	---	---	0
03/12/2007	0	0	0	0	---	---	---	---	---	---	0
03/13/2007 *	0	0	0	0	---	---	---	---	---	---	0
03/14/2007 *	0	0	0	0	---	---	---	---	---	---	0
03/15/2007	0	0	0	0	---	---	---	---	---	---	0
03/16/2007	0	0	0	0	---	---	---	---	---	---	0
03/17/2007	1	0	0	0	---	---	---	---	---	---	0
03/18/2007	0	0	0	0	---	---	---	---	---	---	0
03/19/2007	0	0	0	0	---	---	---	---	---	---	0
03/20/2007	0	0	0	0	---	---	---	---	---	---	0
03/21/2007	0	0	0	0	---	---	---	---	---	---	0
03/22/2007	0	---	0	0	---	---	---	---	---	---	0
03/23/2007	---	---	---	---	---	---	---	---	---	---	---
Total:	1	0	0	0	0	0	0	0	0	0	0
# Days:	14	13	14	14	0	0	0	0	0	0	14
Average:	0	0	0	0	0	0	0	0	0	0	0
YTD	1	0	0	0	0	0	0	0	0	0	0

* 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
 $\text{Passage Index} = \text{Collection Counts} / \{ \text{Powerhouse Flow} / (\text{Powerhouse Flow} + \text{Spill}) \}$
- LGS (Index) = Little Goose Bypass Collection System : Passage Index Counts
 $\text{Passage Index} = \text{Collection Counts} / \{ \text{Powerhouse Flow} / (\text{Powerhouse Flow} + \text{Spill}) \}$
- LMN (Index) = Lower Monumental Dam Bypass Collection System : Passage Index Counts
 $\text{Passage Index} = \text{Collection Counts} / \{ \text{Powerhouse Flow} / (\text{Powerhouse Flow} + \text{Spill}) \}$
- RIS (Index) = Rock Island Dam Second Powerhouse Bypass Trap : Passage Index Counts
 $\text{Passage Index} = \text{Collection Counts} / \{ \text{Powerhouse 2 Flow} / (\text{Powerhouse 1 \& 2 Flow} + \text{Spill}) \}$
- MCN (Index) = McNary Dam Bypass Collection System : Passage Index Counts
 $\text{Passage Index} = \text{Collection Counts} / \{ \text{Powerhouse Flow} / (\text{Powerhouse Flow} + \text{Spill}) \}$
- JDA (Index) = John Day Dam Bypass Collection System : Passage Index Counts
 $\text{Passage Index} = \text{Collection Counts} / \{ \text{Powerhouse Flow} / (\text{Powerhouse Flow} + \text{Spill}) \}$
- BO2 (Index) = Bonneville Dam Second Powerhouse Bypass Collection System : Passage Index Counts
 $\text{Passage Index} = \text{Collection Counts} / \{ \text{Powerhouse 2 Flow} / (\text{Powerhouse 1 \& 2 Flow} + \text{Spill}) \}$

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