



# Fish Passage Center Weekly Report #07 - 4

March 30, 2007

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## Summary of Events:

**Water Supply:** Precipitation throughout the Columbia Basin has varied between 35% and 260% of average at individual sub-basins over the first 26-days of March. Precipitation above The Dalles has been 133% of average over the first 26-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 1-26		Water Year 2007 October 1, 2006 to March 26, 2007	
	Observed (inches)	% Average	Observed (inches)	% Average
	Columbia Above Coulee	3.05	203	16.55
SNAKE RIVER ABOVE ICE HARBOR	0.70	51	8.83	88
Columbia Above The Dalles	2.14	133	15.5	111
Kootenai	3.88	260	18.65	130
Clark Fork	0.86	86	9.60	109
Flathead	1.45	106	12.92	108
Pend Oreille/Spokane	3.14	135	20.56	104
Central Washington	0.39	57	5.78	100
SNAKE RIVER PLAIN	0.33	35	4.84	82
Salmon/Boise/Payette	0.66	41	11.10	89
Clearwater	1.96	83	19.51	107
SW Washington Cascades/Cowlitz	7.01	118	57.12	109
Willamette Valley	3.86	72	49.65	112

Snowpack within the Columbia Basin is below average. Average snowpack in the Columbia River for basins above the Snake River confluence is 83% of average, for Snake River Basins the average snowpack is 62% of average, and for lower Columbia Basins between McNary and Bonneville Dam average snowpack is 71% of average.

Table 2 displays the March Final and April Early runoff volume forecasts for multiple reservoirs. Water Supply Forecasts increased between the March Final and April Early forecasts at most Columbia Basins; however, decreased in Snake Basins. The current forecast at The Dalles between January and July is 102000 Kaf (95% of average).

Location	March Final		April Early	
	% Average (1971-2000)	Probable Runoff Volume (Kaf)	% Average (1971-2000)	Probable Runoff Volume (Kaf)
The Dalles (Jan-July)	93	100000	95	102000
Grand Coulee (Jan-July)	100	63000	106	66700
Libby Res. Inflow, MT (Jan-July)	100	6320	108	6810
Hungry Horse Res. Inflow, MT (Jan-July)	91	2030	91	2020
Lower Granite Res. Inflow (Apr-July)	80	17300	72	15500
Brownlee Res. Inflow (Apr-July)	60	3760	53	3360
Dworshak Res. Inflow (Apr-July)	96	2530	84	2230

Grand Coulee Reservoir is at 1269.9 feet (3-29-07) and has drafted 2.8 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 1560.7 feet (3-29-07) and refilled 3.0 feet last week; outflows at Dworshak were increased to 10 Kcfs over the past three days. The end of March FC shifted FC elevation at Dworshak is 1560.3 feet and the estimated April 10th elevation is 1567.8 feet.

The Libby Reservoir is currently at elevation 2395.2 feet (3-29-07) and refilled 2.9 feet last week. Outflows have been increased to approximately 13 Kcfs over the last two days. The end of March VarQ FC elevation at Libby is 2395.5 feet, the estimated April 10th elevation is 2395.5 feet at Libby.

Hungry Horse is currently at an elevation of 3536.0 feet (3-29-07) and has refilled 1.7 feet last week. Outflows at Hungry Horse were increased to 5 Kcfs on March 27th, 2006. 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 2057.8 feet on March 29th, 2007, refilling 3.1 feet 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 9.9 to 18.1 Kcfs over the last week.

**Spill:** Spill has been occurring at most Columbia and Snake River projects due to a lack of power load demand as the line that feeds Southern California has been incapacitated.

**Smolt Monitoring:** Sampling began at Lower Granite Dam March 26 and SMP traps continuing collection and marking in major Snake River tributaries. Sampling is also under way at Bonneville Dam, where sampling began March 1.

Smolt Monitoring at Snake River tributary traps continued this past week, with increasing numbers of yearling Chinook being captured at the Grande Ronde, Imnaha, and the Salmon River traps. At the Salmon River Trap, operated by IDFG, hatchery yearling Chinook dominated the catch over the past week. Catch of yearling Chinook at the trap has been in the 400 to 500 fish range every day for the past week. 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 hatchery fish have predominated in the past 4 days of sampling. The same is true at the Grande Ronde Trap, clipped hatchery origin chinook predominate. The clipped yearling chinook captured at the Grande Ronde Trap, were likely from a volitional release of 108,000 fish, which began March 10 at Lostine Acclimation Pond.

Sampling began March 26 at Lower Granite Dam. In the first few days of sampling there a greater number of unclipped yearling Chinook have been captured, while captured steelhead were mainly clipped, hatchery origin fish. 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. On March 28th and 29th Dworshak NFH released a total of approximately 950,000 yearling spring Chinook into the Middle Fork of the Clearwater River. Of these, approximately 52,000 were PIT-tagged for the CSS study. March 26th marked the beginning of releases of summer steelhead from Hagerman NFH into the Salmon River (ID). These summer steelhead releases are expected to run through April 6th and will be comprised of approximately 145,000 Pahsimeroi and 95,000 Clearwater stock. A volitional release of approximately 108,000 yearling spring Chinook from the Lostine Acclimation Pond was expected to end on March 26. In addition, 136,000 yearling spring Chinook are expected to be released from this acclimation pond from March 28th to April 17th. Releases of 527,701 summer steelhead into the Snake River, just below Hells Canyon Dam, were concluded on March 29th of this week. Finally, releases of approximately 275,000 summer steelhead into the Little Salmon River began on March 29th and are expected to end around April 3rd.

Over the next two weeks approximately 815,000 yearling fall Chinook are scheduled for release into the Snake River. Of these, 160,000 are scheduled for release from Captain Johns Rapids Acclimation Ponds, while 155,000 will be released from Pittsburg Landing Acclimation Ponds. The remaining 500,000 yearling fall Chinook are scheduled for release from Lyons Ferry Hatchery into the Snake River, beginning April 2nd. Approximately 3.73 million yearling spring Chinook are scheduled for release into the Snake River Zone over the next two weeks. Of these, approximately 50% are scheduled for release into the Clearwater River, 27% in the Salmon River, 10% into the Lochsa River, 8% into the Imnaha River, and 5% 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 4.21 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 23 - Mar 30).

Approximately 451,000 yearling spring Chinook are scheduled for release into the Methow River in April 2007. However, exact dates for these releases are not known but will be updated periodically as data become available. In addition, approximately 400,000 yearling spring Chinook are scheduled for release into the Entiat River from April 1st to April 15th. Finally, approximately 890,000 Coho are scheduled for release into the Yakama River on April 2nd. These releases are part of the Yakama Tribal Program to re-establish Coho runs in the Yakama, Methow, and Wenatchee basins.

**Lower Columbia Zone:** The Lower Columbia Zone is defined as the Columbia River and its tributaries from Bonneville Dam to McNary Dam. There were no known hatchery releases scheduled for the Lower Columbia River Zone this week (Mar 23 - Mar 30).

Approximately 45,000 yearling spring Chinook are scheduled for release from acclimation ponds along Hood River beginning April 10th. In addition, 1.0 million yearling spring Chinook are scheduled for release into the Little White Salmon River on April 12th. Releases of approximately 2.5 million Coho into the Klickitat River are scheduled to begin over the next two weeks. In addition, approximately 100,000 Coho are scheduled to be released into the Umatilla River on April 1st. Finally, releases of approximately 166,000 summer steelhead into the Deschutes River are scheduled to begin April 1st.

**Adult Fish Passage:** Traditional counts at Bonneville Dam began 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 began 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.

Adult counts at Bonneville Dam have been updated through March 26th, 2006. Between March 15th and 26th, 32 adult Spring Chinook had passed Bonneville Dam; this compares to 7 Spring Chinook adults over the same period last year and 1168 over the same period on a 10-year average. From March 15th through March 26th Spring Chinook adults have been counted daily except for one day when no adults were counted. Additionally, 481 steelhead had passed the dam which is more than double the 2006 count of 218. The 2007 Bonneville steelhead count is a 2.5% increase when compared with the 10-year average count of 469 steelhead.

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 the pools and will complete their trip to the spawning grounds in March through early May. Daily counts at Lower Granite had ranged between 230 and 403 adult steelhead last week. The total steelhead count passing at Lower Granite Dam as of March 26th was 5,178 adult steelhead.

**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
03/16/07	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
03/23/07	144.3	0.0	148.3	0.0	155.5	14.6	153.2	3.8	158.6	0.0	166.9	17.9	165.0	6.2
03/24/07	137.8	0.0	155.7	0.0	165.5	25.5	161.7	2.4	166.2	0.0	178.0	35.7	178.8	25.0
03/25/07	100.5	0.0	102.3	0.0	117.7	0.4	124.9	0.0	138.2	0.0	161.9	4.7	171.8	2.6
03/26/07	136.4	0.0	126.2	0.0	133.5	6.6	133.5	0.0	145.8	0.0	143.0	0.0	145.9	0.0
03/27/07	135.5	0.0	143.7	0.0	145.9	10.1	140.3	0.0	147.9	0.0	146.8	0.9	145.1	1.0
03/28/07	158.5	0.0	155.3	0.0	169.9	56.1	164.5	8.7	169.1	0.0	180.0	38.9	178.4	30.8
03/29/07	164.0	0.0	164.2	0.0	175.4	44.1	169.5	9.8	175.2	0.0	199.8	74.7	201.3	60.4

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

Date	Dworshak		Brownlee Canyon		Hells Granite		Lower Granite		Little Goose		Lower Monumental		Ice Harbor	
	Flow	Spill	Inflow	Outflow	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill	Flow	Spill
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	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	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	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	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	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	68.3	0.0
03/22/07	7.7	0.0	16.3	16.7	55.9	0.0	55.7	0.0	57.7	0.0	60.2	0.0	60.2	0.0
03/23/07	7.7	0.0	15.3	18.3	55.2	0.0	64.7	0.0	71.5	0.0	64.8	0.0	64.8	0.0
03/24/07	7.8	0.0	14.9	11.0	45.8	0.0	45.3	0.0	47.9	0.0	49.4	0.0	49.4	0.0
03/25/07	7.8	0.0	14.1	14.6	46.0	0.0	44.0	0.0	45.7	0.0	44.6	0.0	44.6	0.0
03/26/07	8.5	0.0	15.0	18.1	56.5	0.0	64.2	0.0	69.3	0.0	66.7	0.0	66.7	0.0
03/27/07	10.0	0.0	13.8	9.9	65.3	20.3	61.1	9.2	68.5	7.6	69.0	30.5	69.0	30.5
03/28/07	9.9	0.0	13.7	9.2	58.0	15.6	56.4	7.3	60.0	7.7	65.2	23.7	65.2	23.7
03/29/07	10.0	0.0	---	---	54.8	17.7	53.6	8.1	58.7	8.4	58.2	20.0	58.2	20.0

**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		
03/16/07	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
03/23/07	224.6	12.8	200.3	2.7	191.1	0.0	184.5	8.0	62.5	103.4
03/24/07	235.0	12.2	236.1	11.6	238.2	0.0	251.7	30.7	95.2	114.4
03/25/07	216.3	5.9	225.4	2.7	227.5	0.0	252.6	31.3	95.3	114.5
03/26/07	238.9	13.5	272.3	61.0	265.3	4.1	286.3	58.2	98.3	117.9
03/27/07	224.0	36.2	215.1	17.1	214.9	18.3	248.7	48.9	84.3	104.0
03/28/07	231.9	39.8	218.4	15.4	219.7	15.6	249.2	49.3	82.9	105.5
03/29/07	256.2	52.3	256.6	48.5	255.3	20.7	278.4	58.4	95.7	114.2

## HATCHERY RELEASE LAST TWO WEEKS

### Hatchery Release Summary

From: **3/16/2007** to **03/29/07**

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
Idaho Dept. of Fish and Game	McCall Hatchery	CH1	SU	2007	1,087,170	03-19-07	03-22-07	S Fk Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Niagara Springs	ST	SU	2007	275,000	03-29-07	04-03-07	Little Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Niagara Springs	ST	SU	2007	527,701	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
<b>Idaho Dept. of Fish and Game</b>					<b>4,388,353</b>				
<b>Total</b>									
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	Wallowa River
<b>Nez Perce Tribe Total</b>					<b>389,000</b>				
Oregon Dept. of Fish and Wildlife	Lookingglass Hatchery	CH1	SP	2007	308,803	03-21-07	04-12-07	Imnaha Acclim Pond	Imnaha River
<b>Oregon Dept. of Fish and Wildlife Total</b>					<b>308,803</b>				
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	Hagerman NFH	ST	SU	2007	95,000	03-26-07	04-06-07	Little Salmon River Warm Springs	Salmon River (ID)
U.S. Fish and Wildlife Service	Warm Springs NFH	CH1	SP	2007	520,000	03-21-07	04-18-07	Hatchery	Deschutes River
<b>U.S. Fish and Wildlife Service Total</b>					<b>1,565,000</b>				
<b>Total</b>									
Warm Springs Tribe	Round Butte Hatchery	CH1	SP	2007	32,000	03-22-07	05-04-07	Parkdale Acclim Pond	Hood River
<b>Warm Springs Tribe Total</b>					<b>32,000</b>				
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
<b>Yakama Tribe Total</b>					<b>860,812</b>				
<b>Grand Total</b>					<b>7,543,968</b>				

## HATCHERY RELEASE NEXT TWO WEEKS

### Hatchery Release Summary

From: **3/30/2007** to **4/12/2007**

Agency	Hatchery	Species	Race	MigYr	NumRel	RelStart	RelEnd	RelSite	RelRiver
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 Crooked R Acclim	S Fk Clearwater River
Idaho Dept. of Fish and Game	Clearwater Hatchery	CH1	SP	2007	517,000	04-03-07	04-03-07	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	60,000	04-09-07	04-11-07	Squaw Cr Acclim Pond	Salmon River (ID)
Idaho Dept. of Fish and Game	Magic Valley Hatchery	ST	SU	2007	60,000	04-09-07	04-11-07	Squaw Cr Acclim Pond	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	Magic Valley Hatchery	ST	SU	2007	210,000	04-11-07	04-13-07	Little Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Niagara Springs	ST	SU	2007	170,000	04-03-07	04-05-07	Little Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Niagara Springs	ST	SU	2007	275,000	03-29-07	04-03-07	Little Salmon River	Salmon River (ID)
Idaho Dept. of Fish and Game	Niagara Springs	ST	SU	2007	830,000	04-10-07	04-27-07	Pahsimeroi River	Pahsimeroi 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)
<b>Idaho Dept. of Fish and Game Total</b>					<b>6,678,482</b>				
Nez Perce Tribe	Clearwater Hatchery	CH1	SP	2007	269,000	04-01-07	04-01-07	Selway River	Clearwater River M F
Nez Perce Tribe	Dworshak NFH	ST	SU	2007	110,000	04-10-07	04-14-07	American River	S Fk Clearwater River
Nez Perce Tribe	Dworshak NFH	ST	SU	2007	110,000	04-10-07	04-14-07	Newsome Creek Hazard Creek/Little	S Fk Clearwater River
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	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	Lyons Ferry Hatchery	CH1	FA	2007	160,000	04-12-07	04-12-07	Cpt John 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
<b>Nez Perce Tribe Total</b>					<b>1,155,000</b>				
Oregon Dept. of Fish and Wildlife	Irrigon Hatchery Complex	ST	SU	2007	400,000	04-09-07	04-09-07	Wallowa Acclim Pond	Wallowa River
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	Round Butte Hatchery	ST	SU	2007	162,000	04-08-07	04-08-07	Deschutes River	Deschutes River
<b>Oregon Dept. of Fish and Wildlife Total</b>					<b>874,803</b>				
U.S. Fish and Wildlife Service	Dworshak NFH	ST	SU	2007	300,000	04-10-07	04-14-07	Clear Creek	Clearwater River M F
U.S. Fish and Wildlife Service	Dworshak NFH	ST	SU	2007	390,000	04-10-07	04-14-07	S Fk Clearwater River	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	95,000	03-26-07	04-06-07	Little Salmon River	Salmon River (ID)
U.S. Fish and Wildlife Service	Hagerman NFH	ST	SU	2007	756,000	04-09-07	04-27-07	Salmon River (ID)	Salmon River (ID)
U.S. Fish and Wildlife Service	Kooskia NFH	CH1	SP	2007	178,500	04-02-07	04-02-07	Kooskia Hatchery	Clearwater River M F
U.S. Fish and Wildlife Service	Kooskia NFH	CH1	SP	2007	391,500	04-02-07	04-04-07	Kooskia Hatchery Little White Salmon	Clearwater River M F Little White Salmon
U.S. Fish and Wildlife Service	Little White Salmon NFH	CH1	SP	2007	1,000,000	04-12-07	04-12-07	River Warm Springs	River
U.S. Fish and Wildlife Service	Warm Springs NFH	CH1	SP	2007	520,000	03-21-07	04-18-07	Hatchery	Deschutes River
<b>U.S. Fish and Wildlife Service Total</b>					<b>4,031,381</b>				
Umatilla Tribe	Cascade Hatchery	CO	UN	2007	750,000	04-01-07	04-01-07	Umatilla River	Umatilla River
<b>Umatilla Tribe Total</b>					<b>750,000</b>				

HATCHERY RELEASE NEXT TWO WEEKS (cont'd)

								Jones Creek Acclim	
Warm Springs Tribe	Round Butte Hatchery	CH1	SP	2007	20,000	04-10-07	04-16-07	Pond	Hood River
Warm Springs Tribe	Round Butte Hatchery	CH1	SP	2007	27,500	04-10-07	04-16-07	Blackberry Acclim Pond	Hood River
Warm Springs Tribe	Round Butte Hatchery	CH1	SP	2007	32,000	03-22-07	05-04-07	Parkdale Acclim Pond	Hood River
<b>Warm Springs Tribe Total</b>					<b>79,500</b>				
Washington Dept. of Fish and Wildlife	Lyons Ferry Hatchery	CH1	FA	2007	500,000	04-02-07	04-06-07	Lyons Ferry Hatchery	Snake 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	Tucannon Hatchery	CH1	SP	2007	86,000	04-03-07	04-15-07	Tucannon River	Tucannon River
Washington Dept. of Fish and Wildlife	Tucannon Hatchery	CH1	SP	2007	111,000	04-03-07	04-15-07	Tucannon River	Tucannon River
Washington Dept. of Fish and Wildlife	Tucannon Hatchery	ST	SU	2007	70,000	04-03-07	04-15-07	Tucannon River	Tucannon River
Washington Dept. of Fish and Wildlife	Washougal Hatchery	CO	NO	2007	2,500,000	04-02-07	04-02-07	Klickitat River	Klickitat River
<b>Washington Dept. of Fish and Wildlife Total</b>					<b>3,718,000</b>				
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
<b>Yakama Tribe Total</b>					<b>2,750,393</b>				
<b>Grand Total</b>					<b>20,037,559</b>				



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

Total Dissolved Gas Saturation Data at Upper Columbia River Sites

Date	<u>Hungry H. Dnst</u>			<u>Boundary</u>			<u>Grand Coulee</u>			<u>Grand C. Tlwr</u>			<u>Chief Joseph</u>							
	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>					
	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>				
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
3/23	97	97	98	24	108	110	112	24	103	103	104	24	102	103	104	24	---	---	---	0
3/24	98	98	98	23	109	111	113	24	104	104	105	24	103	103	103	24	---	---	---	0
3/25	98	98	98	24	113	117	118	24	104	104	104	24	102	102	103	24	---	---	---	0
3/26	97	97	98	24	115	117	119	24	104	104	105	24	102	103	103	24	103	103	107	8
3/27	98	98	98	24	115	117	118	24	104	104	105	24	102	103	103	24	102	103	103	24
3/28	96	97	97	24	113	116	117	24	103	103	103	24	101	101	101	24	101	101	102	24
3/29	96	96	96	24	115	116	116	24	103	103	104	24	101	101	102	24	101	101	101	24

Total Dissolved Gas Saturation Data at Mid Columbia River Sites

Date	<u>Chief J. Dnst</u>			<u>Wells</u>			<u>Wells Dwnstrm</u>			<u>Rocky Reach</u>			<u>Rocky R. Tlwr</u>							
	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>					
	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>				
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
3/23	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/24	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/25	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/26	102	102	103	8	---	---	---	0	---	---	---	0	---	---	---	0	---	---	---	0
3/27	102	102	103	24	---	---	---	0	104	106	109	18	---	---	---	0	---	---	---	0
3/28	100	101	102	23	100	100	100	16	111	115	120	24	---	---	---	0	---	---	---	0
3/29	100	101	102	24	100	101	101	24	110	113	116	24	---	---	---	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>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>					
	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>				
3/16	---	---	---	0	---	---	---	0	102	102	102	24	---	---	---	0	103	103	103	24
3/17	---	---	---	0	---	---	---	0	102	103	103	24	---	---	---	0	106	108	115	24
3/18	---	---	---	0	---	---	---	0	102	103	103	24	---	---	---	0	106	106	107	24
3/19	---	---	---	0	---	---	---	0	103	103	104	24	105	105	106	15	105	105	105	24
3/20	---	---	---	0	---	---	---	0	104	104	104	24	105	106	114	24	104	104	105	24
3/21	---	---	---	0	---	---	---	0	102	102	102	24	103	103	104	24	103	104	104	24
3/22	---	---	---	0	---	---	---	0	102	102	102	24	103	103	104	24	104	104	107	24
3/23	---	---	---	0	---	---	---	0	101	102	102	24	104	105	108	24	103	104	105	24
3/24	---	---	---	0	---	---	---	0	102	103	103	24	108	111	119	24	106	107	113	24
3/25	---	---	---	0	---	---	---	0	102	102	103	24	104	105	114	24	107	108	111	24
3/26	---	---	---	0	---	---	---	0	102	103	104	24	104	105	105	24	104	104	106	24
3/27	---	---	---	0	---	---	---	0	103	104	104	24	105	105	105	24	104	104	104	24
3/28	---	---	---	0	---	---	---	0	103	103	103	24	108	111	118	24	104	106	113	24
3/29	---	---	---	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>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>		
	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>
3/16	103	104	109	24	---	---	---	0	104	105	105	24	---	---	---	0	---	---	---	0
3/17	106	108	111	24	---	---	---	0	105	106	107	24	---	---	---	0	---	---	---	0
3/18	104	104	105	24	---	---	---	0	105	105	106	24	---	---	---	0	---	---	---	0
3/19	104	104	105	24	---	---	---	0	105	105	106	24	---	---	---	0	---	---	---	0
3/20	104	104	105	24	---	---	---	0	99	102	105	24	---	---	---	0	---	---	---	0
3/21	103	103	104	24	---	---	---	0	95	95	96	21	---	---	---	0	---	---	---	0
3/22	105	106	109	24	---	---	---	0	96	97	97	24	---	---	---	0	---	---	---	0
3/23	104	104	106	24	107	107	107	1	96	96	97	24	---	---	---	0	---	---	---	0
3/24	107	109	113	24	---	---	---	0	97	97	97	24	---	---	---	0	---	---	---	0
3/25	106	108	110	24	---	---	---	0	96	97	97	20	---	---	---	0	---	---	---	0
3/26	103	104	104	24	105	106	106	24	96	96	97	19	---	---	---	0	---	---	---	0
3/27	103	104	104	24	103	103	104	24	96	96	97	22	---	---	---	0	101	101	102	7
3/28	106	109	115	24	102	103	103	24	95	95	95	1	---	---	---	0	101	102	103	24
3/29	---	---	---	0	106	108	109	24	---	---	---	0	---	---	---	0	102	103	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>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>		
	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>
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
3/23	---	---	---	0	100	100	101	13	101	101	101	24	102	102	102	13	101	102	102	24
3/24	---	---	---	0	---	---	---	0	101	102	102	24	---	---	---	0	102	102	103	20
3/25	---	---	---	0	---	---	---	0	102	102	102	19	---	---	---	0	102	102	103	23
3/26	---	---	---	0	102	102	103	24	102	103	105	24	102	103	103	24	102	102	103	24
3/27	---	---	---	0	102	102	103	24	112	113	113	24	101	102	102	24	105	105	106	24
3/28	100	100	101	15	99	99	100	24	107	110	111	24	99	100	100	24	102	103	104	24
3/29	100	102	103	24	98	99	100	24	109	111	112	24	99	100	100	24	103	105	107	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>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>	<u>24 h</u>	<u>12 h</u>	<u>#</u>		
	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>	<u>Avg</u>	<u>Avg</u>	<u>High</u>	<u>hr</u>
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
3/23	102	102	103	3	102	102	104	24	104	105	105	24	104	104	105	24	---	---	---	0
3/24	---	---	---	0	102	102	103	24	104	105	105	18	104	105	105	24	---	---	---	0
3/25	---	---	---	0	102	102	102	24	106	107	137	17	104	104	104	24	---	---	---	0
3/26	102	103	103	24	102	103	104	24	103	104	104	24	103	103	104	24	---	---	---	0
3/27	102	103	103	24	108	109	110	24	102	102	103	24	114	114	115	24	---	---	---	0
3/28	100	100	101	24	106	108	109	24	100	100	101	24	111	114	114	24	---	---	---	0
3/29	100	101	102	24	107	109	109	24	101	102	103	24	109	114	114	24	---	---	---	0

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

Total Dissolved Gas Saturation Data at Lower Columbia River Sites

Date	<u>McNary-Wash</u>			<u>McNary Tlwr</u>			<u>John Day</u>			<u>John Day Tlwr</u>			<u>The Dalles</u>							
	<u>24 h</u>	<u>12 h</u>	#	<u>24 h</u>	<u>12 h</u>	#	<u>24h</u>	<u>12h</u>	#	<u>24h</u>	<u>12h</u>	#	<u>24h</u>	<u>12h</u>	#	<u>24h</u>	<u>AVG</u>	<u>High</u>	#	
	Avg	Avg		High	Avg		Avg	High		Avg	Avg		High	Avg		Avg	High	Avg		AVG
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
3/23	---	---	---	0	107	109	113	18	---	---	---	0	105	105	108	24	---	---	---	0
3/24	---	---	---	0	109	112	113	23	---	---	---	0	107	108	109	24	---	---	---	0
3/25	---	---	---	0	105	105	106	7	---	---	---	0	105	105	107	24	---	---	---	0
3/26	104	105	105	23	108	111	113	24	---	---	---	0	114	119	120	24	---	---	---	0
3/27	104	105	105	24	111	113	113	24	---	---	---	0	108	112	114	24	---	---	---	0
3/28	103	103	104	24	111	112	112	24	102	102	103	13	107	111	113	24	103	103	103	8
3/29	102	103	104	24	112	114	116	24	103	103	104	24	114	115	118	24	104	105	106	24

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>	#	<u>24h</u>	<u>12h</u>	<u>High</u>	#	
	Avg	Avg		High	Avg		Avg	High		Avg	Avg		High	Avg		Avg	High	Avg		AVG
3/16	103	104	104	24	103	104	104	24	104	104	105	24	104	105	106	24	115	116	116	24
3/17	104	104	105	24	104	105	105	24	104	105	105	24	105	106	106	24	107	108	109	24
3/18	104	104	105	24	105	105	105	24	105	105	105	24	105	106	107	24	109	110	112	24
3/19	105	105	105	24	105	105	105	24	105	105	105	24	106	106	107	24	109	111	111	24
3/20	104	104	105	24	104	104	105	24	103	104	105	24	104	104	105	24	108	109	110	24
3/21	104	105	106	24	102	103	103	24	103	103	105	24	103	104	105	24	110	113	116	24
3/22	107	108	108	24	104	104	105	23	105	105	106	23	105	106	107	23	111	114	116	23
3/23	105	105	107	24	105	106	106	24	106	107	109	23	105	106	107	24	110	110	113	24
3/24	104	104	105	24	107	107	108	23	107	108	108	22	107	107	107	24	111	113	113	23
3/25	104	104	104	24	104	104	105	21	105	105	106	24	106	106	107	24	112	112	112	24
3/26	104	105	106	24	104	104	105	24	106	107	108	24	105	105	105	24	114	116	119	24
3/27	108	109	110	24	103	103	104	24	105	105	107	24	105	105	106	24	112	113	116	24
3/28	103	104	105	24	103	105	105	24	104	105	106	24	103	104	105	24	112	112	113	24
3/29	105	107	110	24	104	104	105	24	106	106	107	24	106	106	107	24	114	115	119	24





## Two-Week Summary of Passage Indices

Date	COMBINED SOCKEYE									MCN (INDEX)	JDA (INDEX)	BO2 (INDEX)
	WTB (Coll)	IMN (Coll)	GRN (Coll)	LEW (Coll)	LGR (INDEX)	LGS (INDEX)	LMN (INDEX)	RIS (INDEX)				
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	---	---	---	---	---	---	---	0
03/23/2007	0	0	0	0	---	---	---	---	---	---	---	0
03/24/2007	0	0	0	0	---	---	---	---	---	---	---	0
03/25/2007	0	0	0	0	---	---	---	---	---	---	---	0
03/26/2007	0	0	0	0	10	---	---	---	---	---	---	0
03/27/2007	0	0	0	0	11	---	---	---	---	---	---	0
03/28/2007	0	0	0	0	15	---	---	---	---	---	---	0
03/29/2007	---	---	0	0	14	---	---	---	---	---	---	0
03/30/2007	---	---	---	---	---	---	---	---	---	---	---	---
<hr style="border-top: 1px dashed black;"/>												
<b>Total:</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>50</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b># Days:</b>	<b>13</b>	<b>13</b>	<b>14</b>	<b>14</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14</b>
<b>Average:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>13</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>YTD</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>50</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

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

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

### Definitions for Smolt Index Counts

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

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

### Two Week Transportation Summary

Source: Fish Passage Center

Updated:

3/30/07 9:21 AM

**03/16/07 TO 03/30/07**

		Species				
Site	Data	CH1	CO	SO	ST	Grand Total
<b>LGR</b>	Sum of NumberCollected	1,310	30	40	1,590	2,970
	Sum of NumberBarged	0	0	0	0	0
	Sum of NumberBypassed	1,309	30	40	1,590	2,969
	Sum of Numbertrucked	0	0	0	0	0
	Sum of SampleMorts	0	0	0	0	0
	Sum of FacilityMorts	1	0	0	0	1
	Sum of ResearchMorts	0	0	0	0	0
	Sum of TotalProjectMorts	1	0	0	0	1
Total Sum of NumberCollected		1,310	30	40	1,590	2,970
Total Sum of NumberBarged		0	0	0	0	0
Total Sum of NumberBypassed		1,309	30	40	1,590	2,969
Total Sum of Numbertrucked		0	0	0	0	0
Total Sum of SampleMorts		0	0	0	0	0
Total Sum of FacilityMorts		1	0	0	0	1
Total Sum of ResearchMorts		0	0	0	0	0
Total Sum of TotalProjectMorts		1	0	0	0	1

### YTD Transportation Summary

Source: Fish Passage Center

Updated:

3/30/07 9:21 AM

**TO: 03/30/07**

		Species				
Site	Data	CH1	CO	SO	ST	Grand Total
<b>LGR</b>	Sum of NumberCollected	1,310	30	40	1,590	2,970
	Sum of NumberBarged	0	0	0	0	0
	Sum of NumberBypassed	1,309	30	40	1,590	2,969
	Sum of NumberTrucked	0	0	0	0	0
	Sum of SampleMorts	0	0	0	0	0
	Sum of FacilityMorts	1	0	0	0	1
	Sum of ResearchMorts	0	0	0	0	0
	Sum of TotalProjectMorts	1	0	0	0	1
Total Sum of NumberCollected		1,310	30	40	1,590	2,970
Total Sum of NumberBarged		0	0	0	0	0
Total Sum of NumberBypassed		1,309	30	40	1,590	2,969
Total Sum of NumberTrucked		0	0	0	0	0
Total Sum of SampleMorts		0	0	0	0	0
Total Sum of FacilityMorts		1	0	0	0	1
Total Sum of ResearchMorts		0	0	0	0	0
Total Sum of TotalProjectMorts		1	0	0	0	1

**Cumulative Adult Passage at Mainstem Dams Through: 03/29**

DAM	EndDate	Spring Chinook						Summer Chinook						Fall Chinook					
		2007		2006		10-Yr Avg.		2007		2006		10-Yr Avg.		2007		2006		10-Yr Avg.	
		Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack	Adult	Jack
BON	03/26	32	0	7	0	1168	0	0	0	0	0	0	0	0	0	0	0	0	0
TDA	03/30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JDA	03/30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MCN	03/30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IHR	03/30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LMN	03/30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LGS	03/30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LGR	03/26	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PRD	03/30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RIS	03/30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RRH	03/30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WEL	03/30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WFA	03/28	15	0	21	0	-	-	0	0	0	0	-	-	0	0	0	0	-	-

DAM	Coho						Sockeye			Steelhead			
	2007		2006		10-Yr Avg.		2007	2006	10-Yr Avg.	2007	2006	10-Yr Avg.	Wild 2007
	Adult	Jack	Adult	Jack	Adult	Jack							
BON	0	0	0	0	0	0	0	0	0	481	218	469	168
TDA	0	0	0	0	0	0	0	0	0	0	0	0	0
JDA	0	0	0	0	0	0	0	0	0	0	0	0	0
MCN	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
LMN	0	0	0	0	0	0	0	0	0	0	0	0	0
LGS	0	0	0	0	0	0	0	0	0	0	0	0	0
LGR	0	0	0	0	0	0	0	0	0	5178	2683	3444	755
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	2	0	0	0	-	-	0	0	-	4134	4517	-	-

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: 03/30/07

BON counts from January 1, 2006 to March 14, 2006 (traditional counts begin March 15):

Year	Chinook Adult	Chinook Jack	Steelhead	Wild Steelhead
2007	22	0	1,677	517
2006	2	0	2,523	239