



Fish Passage Center

Weekly Report #09 - 23

August 14, 2009

1827 NE 44th Ave., Suite 240
 Portland, OR 97213
 phone: 503/230-4099
 fax: 503/230-7559

Summary of Events:

Water Supply: Precipitation throughout the Columbia Basin has varied between 14% and 501% of average at individual sub-basins through the first portion of August. Precipitation above The Dalles has been 178% of average over August. Over the entire water year, precipitation has generally been near average.

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

| Location | Water Year 2009 August 1-10 | | Water Year 2009 October 1, 2008 to August 1-10, 2009 | |
|-----------------------------------|--------------------------------|--------------|--|--------------|
| | Observed (inches) | % Average | Observed (inches) | % Average |
| Columbia Above Coulee | 0.68 | 125 | 20.70 | 91 |
| Snake River Above Ice Harbor | 0.75 | 272 | 18.83 | 116 |
| Columbia Above The Dalles | 0.68 | 178 | 21.35 | 100 |
| Kootenai | 0.34 | 62 | 20.15 | 86 |
| Clark Fork | 1.17 | 279 | 16.95 | 107 |
| Flathead | 0.68 | 130 | 19.08 | 91 |
| Pend Oreille/ Spokane | 0.73 | 177 | 27.46 | 95 |
| Central Washington | 0.07 | 58 | 7.01 | 83 |
| Snake River Plain | 0.47 | 249 | 12.49 | 120 |
| Salmon/Boise/ Payette | 1.13 | 501 | 18.63 | 100 |
| Clearwater | 1.24 | 319 | 30.84 | 108 |
| SW Washington Cascades/Cowlitz | 0.10 | 21 | 59.08 | 88 |
| Willamette Valley | 0.05 | 14 | 48.27 | 85 |

Table 2 displays the June Final and July Final runoff volume forecasts for multiple reservoirs. The most notable differences between the June Final and July Final forecasts came at Libby Dam and Lower Granite Dam. At Libby, the July Final forecast decreased 11% relative to the June Final Forecast. At Lower Granite Dam, the July Final forecast increased 7% relative to the June Final Forecast, it appears most of the increase at Lower Granite was due to an increase in water supply above Brownlee Dam (increased 14%). The Water Supply Forecast at The Dalles between January and July is 89300 Kaf (83% of average).

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

| Location | June Final | | July Final | |
|--|---------------------------------|---------------------------------------|---------------------------------|---------------------------------------|
| | % Average (1971- 2000) | Probable Runoff Volume (Kaf) | % Average (1971- 2000) | Probable Runoff Volume (Kaf) |
| The Dalles (Jan- July) | 86 | 92000 | 83 | 89300 |
| Grand Coulee (Jan- July) | 85 | 53700 | 79 | 49600 |
| Libby Res. Inflow, MT (Apr-Aug) | 80 | 5000 5062* | 69 | 4330 |
| Hungry Horse Res. Inflow, MT (Jan- July) | 93 | 2060 | 91 | 2020 |
| Lower Granite Res. Inflow (Apr- July) | 102 | 21900 | 109 | 23500 |
| Brownlee Res. Inflow (Apr-July) | 76 | 4780 | 90 | 5710 |
| Dworshak Res. Inflow (Apr-July) | 98 | 2590 2597* | 97 | 2570 |

*Denotes COE Forecast

The summer flow period began on 6-21-09 at Lower Granite Dam and the objective is 52.5 Kcfs. Flows at Lower Granite have average 54.0 Kcfs over the summer period and 33.4 Kcfs last week.

The summer flow period began on July 1 at McNary Dam and the objective is 200 Kcfs. Flows at McNary Dam have averaged 153.7 Kcfs over the summer period and 116.9 Kcfs last week.

Grand Coulee Reservoir is at 1283.4 feet (8-13-09) and drafted 0.3 feet over the last week. Outflows at Grand Coulee have ranged between 55.3 and 88.9 Kcfs over the last week. The Grand Coulee summer draft will be 1278 feet this year by August 31st, 2009.

The Libby Reservoir is currently at elevation 2442.5 feet (8-13-09) and has refilled 0.4 feet last week. Outflows at Libby are currently 7 Kcfs (minimum bull trout flow) and will remain at this level through August.

Hungry Horse is currently at an elevation of 3557.3 ft (8-13-09) and has drafted 0.6 feet last week. Outflows at Hungry Horse have been approximately 2.6 Kcfs last week.

Dworshak is currently at an elevation of 1555.1 feet (8-13-09) and has drafted 6.8 feet last week. Outflows at Dworshak were 10 Kcfs last week. Future releases from the project will be dependent on temperatures at the Lower Granite Dam tailrace.

The Brownlee Reservoir was at an elevation of 2060.9 feet on August 13th, 2009, refilling 1.9 feet last week. Outflows at Brownlee Dam have been 7.5 to 11.9 Kcfs over the last week.

Spill:

The 2009 planned summer spill program at the lower Snake River Projects began at 0001 hours on June 20, 2009. The following table shows the planned operations for 2009.

| Project | Day/Night Spill |
|------------------|-----------------|
| Lower Granite | 18Kcfs/18Kcfs |
| Little Goose | 30%/30% |
| Lower Monumental | 17Kcfs/17Kcfs |
| Ice Harbor | 45Kcfs/Gas Cap |

Lower Granite Dam has been spilling at, or above, the Court Order. Little Goose and Lower Monumental dams met the court order over the past week. Ice Harbor Dam has met the court ordered levels of 45 Kcfs daytime spill and gas cap nighttime spill, except when daytime spill is below 45 Kcfs due to low flows and powerhouse minimum flows.

The following table shows the planned operations for summer spill levels in the lower Columbia River for 2009.

| Project | Day/Night Spill |
|------------|------------------------------|
| McNary | 50%/50%* (beginning June 20) |
| John Day | 30%/30% |
| The Dalles | 40%/40% |
| Bonneville | 75 Kcfs/gas cap |

McNary Dam spill has met the Court Order over the past week. At John Day Dam the project is spilling an instantaneous 30%. The Dalles Dam met the court ordered 40% level over the past week. At Bonneville Dam all flow above the powerhouse minimum of about 30 Kcfs is being spilled.

TDG registered slightly above 115% at the Camas/Washougal gage (08/09, 08/10 and 08/11). The total dissolved gas levels were due to the diel heating, and there is no water quality requirement to manage spill to this gage. The tailrace gage at McNary Dam was malfunctioning from 08/07 to 08/10.

Gas bubble trauma (GBT) monitoring occurred at Little Goose and Lower Monumental dams in the Snake River, at Rock Island Dam in the Mid Columbia and at McNary and Bonneville dams in the lower Columbia. Over the past week no fish were detected with signs of GBT.

Smolt Monitoring: Subyearling Chinook smolt collection and passage numbers dropped off steadily at McNary Dam and Bonneville Dam this past week, while at Snake River projects numbers of subyearlings declined again at Little Goose and Lower Monumental dams. Collection of Spring migrants continued to decline at all SMP sites in the Snake River and Lower Columbia this past week.

At Lower Granite Dam subyearling Chinook predominated with coho smolt numbers second in prevalence but at very low numbers. Average daily passage index for subyearling Chinook was at 330 per day this week compared to 340 per day last week. At Little Goose Dam the subyearling Chinook indices increased this week with the daily average index at 410 per day this week compared to 970 last week.

At Rock Island dam the daily passage indices for subyearling Chinook predominated in the sample, with

indices averaging over 30 per day this week compared to 80 per day last week.

In the lower Columbia River subyearling Chinook smolt numbers declined again this week at McNary Dam. Subyearling Chinook passage indices dropped from nearly 11,000 per day last week to about 4,000 per day this week. At Bonneville Dam subyearling Chinook indices were down a little from last week; the index average just over 1,700 per day this week compared to over 13,500 per day last week.

Hatchery Release:

Snake River Zone: The Snake River Zone encompasses the Snake River and its tributaries from its confluence with the Columbia River to Hells Canyon Dam. There were no releases of juvenile salmonids scheduled for this week. Furthermore, no releases of juvenile salmonids are scheduled to begin 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 scheduled releases of juvenile salmonids to this zone this week. There are no releases of juvenile salmonids to this zone over the next two weeks.

Lower Columbia Zone: The Lower Columbia Zone is defined as the Columbia River and its tributaries from Bonneville Dam to McNary Dam. No releases of juvenile salmonids were scheduled for this zone over the past week. Furthermore, there are no releases scheduled for this zone over the next two weeks.

Adult Passage:

Fall Chinook began to pass Bonneville Dam on August 1st. Daily counts of adult fall Chinook ranged from 232 to 1575. The 2009 adult fall Chinook count of 6104 was about 96.0% of the 2008 count and about 87.2% of the 10 year average. The fall Chinook jack count of 1887 was about 1.89 times greater than the 2008 count and about 1.70 times greater than the 10 year average. The adult fall Chinook count total at The Dalles Dam of 2480 is about 40.6% of the Bonneville passage to date.

Summer Chinook counts ended on 8/13 at Little Goose Dam. The 2009 Little Goose Dam adult summer Chinook count of 20212 was about 93.2% of the 2008 count and 1.80 times greater than the 10 year average. The 2009 summer Chinook jack count at Little Goose Dam of 11181 was 2.33 times greater than the 2008 count and about 4.44 times greater than the 10 year

average. The adult summer Chinook count at Lower Granite Dam of 14373 was 63.7% of the 2008 count and 1.29 times greater than the 10 year average. The Lower Granite summer Chinook jack count of 16285 was 3.22 times greater than the 2008 count and 5.93 times greater than the 10 year average. The 2009 Priest Rapids Dam adult summer Chinook count of 49156 was about 1.27 times greater than the 2008 count and was about 93.4% of the 10 year average. The 2009 Priest Rapids summer Chinook jack count of 2086 was about 73.5% of the 2008 count and 91.4% of the 10 year average.

Daily steelhead counts at Bonneville Dam for the past week ranged between 2737 and 34053. The daily adult steelhead count of 34053 on 8/13/09 was the highest recorded adult daily steelhead count at Bonneville Dam (date range searched was 1977 through 2009). Prior to this season, the highest adult daily steelhead count at Bonneville Dam occurred on August 3rd, 2001 when a total of 14432 adult steelhead were counted. The Bonneville Dam 2009 steelhead count of 258087 is about 1.39 times greater than the 2008 count and 1.46 times greater than the 10 year average. In the Snake River, this year's Lower Granite steelhead count of 18405 is about 99.8% of the 2008 count of 18445 and 1.40 times greater than the 10 year average of 13129. The 2009 wild steelhead count as of August 13th was 5966. At Rock Island Dam, as of August 12th, 3868 adult steelhead had been counted and at Rocky Reach Dam, 3108 adult steelhead had been counted so far this season. At Willamette Falls Dam, the 2009 count for steelhead was 16828, as of August 12th. This year's steelhead count is only about 90.1% of the 2008 count of 18562 at Willamette Falls Dam for the same date range.

The 2009 adult sockeye count at Bonneville Dam of 177785 is about 83.2% of the 2008 count of 213583 and about 2.26 times greater than the 10 year average of 78583. In the upper Columbia River at Priest Rapids Dam, the 2009 adult sockeye count of 153291 was about 77.9% of the 2008 count and 2.05 times greater than the 10 year average. Two of the major spawning sites for sockeye in the upper Columbia River zone are Lake Wenatchee and Lake Osoyoos (Okanogan basin). In the Snake River at Lower Granite Dam the 2009 adult sockeye count of 1208 was about 1.38 times greater than the 2008 count of 877 and 9.59 times greater than the 10 year average count of 126.

The coho salmon run at Bonneville Dam is just beginning with 363 adults and 116 jacks counted to date. Five chum and one pink salmon have been observed at Bonneville Dam so far this season. In 2008, 5 chum and 59 pink salmon had been observed by this date. As of August 13th at Bonneville Dam, the adult Shad count was 1373623 which was about 64.1% of the 2008 count of 2143835 and only about 44.1% of the 10 year average count of 3117871.

The posting of the daily fish counts have been delayed several days this week on the Corp of Engineers website due to computer problems. The COE is working on fixing the problems. FPC staff called project count stations and requested fish count data. The counts for BON, TDA, JDA, LGS and LGR have been updated with the data we have received over the phone from the COE fish counters. The data for 8/11 through 8/13 at these sites are preliminary data.

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 |
| 07/31/2009 | 106.5 | 0.1 | 107.2 | 0.0 | 110.7 | 8.2 | 109.5 | 9.0 | 109.4 | 22.6 | 117.7 | 22.7 | 118.1 | 22.4 |
| 08/01/2009 | 75.7 | 0.2 | 70.4 | 0.0 | 77.5 | 6.8 | 83.9 | 6.3 | 86.6 | 14.8 | 94.4 | 19.7 | 96.0 | 22.2 |
| 08/02/2009 | 60.0 | 0.2 | 59.5 | 0.0 | 60.1 | 6.2 | 59.5 | 5.5 | 60.0 | 13.1 | 71.9 | 19.1 | 69.3 | 21.4 |
| 08/03/2009 | 79.6 | 0.2 | 84.5 | 0.0 | 83.5 | 7.2 | 84.6 | 8.1 | 85.1 | 20.0 | 86.3 | 19.2 | 74.5 | 21.6 |
| 08/04/2009 | 87.4 | 0.2 | 89.2 | 0.0 | 91.9 | 7.1 | 90.0 | 7.6 | 89.8 | 18.6 | 94.9 | 19.2 | 93.9 | 22.2 |
| 08/05/2009 | 93.9 | 0.2 | 94.0 | 0.0 | 99.2 | 7.8 | 96.2 | 7.3 | 95.8 | 19.0 | 94.2 | 19.6 | 86.9 | 22.6 |
| 08/06/2009 | 94.9 | 0.2 | 97.6 | 0.0 | 98.7 | 7.4 | 96.7 | 7.2 | 98.4 | 18.9 | 103.6 | 19.4 | 99.7 | 23.4 |
| 08/07/2009 | 74.4 | 0.1 | 71.7 | 0.0 | 79.4 | 6.0 | 81.6 | 7.4 | 82.5 | 19.0 | 98.6 | 19.6 | 99.6 | 23.2 |
| 08/08/2009 | 55.8 | 0.1 | 58.4 | 0.0 | 57.6 | 4.5 | 57.8 | 5.5 | 57.2 | 13.8 | 53.8 | 18.8 | 58.7 | 21.4 |
| 08/09/2009 | 55.3 | 0.2 | 59.6 | 0.0 | 59.4 | 5.2 | 55.0 | 5.0 | 52.9 | 12.4 | 55.6 | 19.1 | 51.1 | 22.7 |
| 08/10/2009 | 88.9 | 0.1 | 82.9 | 0.0 | 83.3 | 6.3 | 82.8 | 7.0 | 83.9 | 16.3 | 87.9 | 19.4 | 76.3 | 22.4 |
| 08/11/2009 | 81.6 | 0.1 | 86.1 | 0.0 | 90.7 | 7.4 | 89.2 | 6.6 | 89.1 | 15.4 | 90.1 | 20.0 | 87.1 | 23.4 |
| 08/12/2009 | 70.1 | 0.2 | 66.9 | 0.0 | 68.8 | 6.5 | 68.2 | 6.6 | 68.7 | 16.3 | 84.9 | 19.6 | 88.9 | 23.0 |
| 08/13/2009 | 55.4 | 0.2 | 60.7 | 0.0 | 63.7 | 6.2 | 62.7 | 6.3 | 64.4 | 12.6 | 66.9 | 19.4 | 60.0 | 22.0 |

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

| Date | Dworshak | | Hells Canyon | | Lower Granite | | Little Goose | | Lower Monumental | | Ice Harbor | |
|------------|----------|-------|--------------|---------|---------------|-------|--------------|-------|------------------|-------|------------|-------|
| | Flow | Spill | Inflow | Outflow | Flow | Spill | Flow | Spill | Flow | Spill | Flow | Spill |
| 07/31/2009 | 13.6 | 3.8 | 9.9 | 15.1 | 40.6 | 18.8 | 39.5 | 11.8 | 37.9 | 16.9 | 39.6 | 29.1 |
| 08/01/2009 | 13.6 | 3.8 | 9.7 | 13.5 | 39.5 | 18.7 | 38.2 | 11.3 | 36.9 | 17.5 | 37.5 | 27.1 |
| 08/02/2009 | 13.6 | 3.7 | 9.6 | 10.6 | 36.3 | 18.7 | 35.9 | 10.6 | 34.8 | 17.1 | 37.2 | 26.4 |
| 08/03/2009 | 13.5 | 3.6 | 10.2 | 13.4 | 35.2 | 18.7 | 33.7 | 9.9 | 32.7 | 17.5 | 34.6 | 24.4 |
| 08/04/2009 | 13.3 | 3.4 | 9.5 | 11.5 | 37.4 | 18.8 | 36.8 | 10.9 | 35.7 | 17.1 | 38.5 | 28.3 |
| 08/05/2009 | 12.1 | 2.2 | 9.1 | 11.4 | 33.3 | 18.6 | 33.3 | 9.9 | 30.4 | 17.4 | 30.4 | 20.1 |
| 08/06/2009 | 10.1 | 0.1 | 8.9 | 8.6 | 32.6 | 18.8 | 30.9 | 9.2 | 29.3 | 17.1 | 30.2 | 20.2 |
| 08/07/2009 | 9.9 | 0.0 | 10.1 | 8.7 | 31.5 | 18.8 | 30.7 | 9.2 | 29.7 | 17.4 | 31.4 | 21.2 |
| 08/08/2009 | 10.0 | 0.0 | 11.6 | 8.4 | 31.6 | 18.9 | 30.3 | 9.1 | 29.5 | 17.3 | 32.1 | 21.6 |
| 08/09/2009 | 10.0 | 0.0 | 13.0 | 9.5 | 34.3 | 18.6 | 33.8 | 9.9 | 33.3 | 17.5 | 34.4 | 24.1 |
| 08/10/2009 | 10.0 | 0.0 | 13.1 | 11.5 | 34.6 | 23.9 | 33.7 | 9.9 | 32.8 | 17.1 | 34.3 | 24.3 |
| 08/11/2009 | 10.0 | 0.0 | 11.7 | 11.2 | 34.3 | 23.8 | 33.7 | 9.9 | 32.1 | 17.4 | 33.0 | 22.8 |
| 08/12/2009 | 10.0 | 0.0 | 12.3 | 12.4 | 33.2 | 24.0 | 33.7 | 9.9 | 32.0 | 17.2 | 33.1 | 23.0 |
| 08/13/2009 | 10.1 | 0.0 | --- | --- | 34.6 | 24.4 | 33.7 | 9.9 | 31.9 | 17.5 | 33.7 | 23.5 |

Daily Average Flow and Spill (in kcfs) at Lower Columbia Projects

| Date | McNary | | John Day | | The Dalles | | Bonneville | | PH1 | PH2 |
|------------|--------|-------|----------|-------|------------|-------|------------|-------|-----|------|
| | Flow | Spill | Flow | Spill | Flow | Spill | Flow | Spill | | |
| 07/31/2009 | 156.1 | 77.0 | 130.5 | 39.2 | 128.8 | 51.5 | 130.4 | 74.5 | 0.0 | 43.8 |
| 08/01/2009 | 154.3 | 76.0 | 147.4 | 44.1 | 137.5 | 54.9 | 159.6 | 74.4 | 0.0 | 73.1 |
| 08/02/2009 | 137.8 | 67.8 | 128.3 | 38.6 | 123.5 | 49.3 | 136.7 | 74.4 | 0.0 | 50.3 |
| 08/03/2009 | 112.5 | 55.1 | 108.1 | 32.4 | 106.4 | 42.5 | 118.4 | 75.5 | 0.0 | 30.9 |
| 08/04/2009 | 117.4 | 56.6 | 108.9 | 32.5 | 106.5 | 42.6 | 124.9 | 78.5 | 0.0 | 34.3 |
| 08/05/2009 | 151.7 | 73.3 | 141.3 | 42.4 | 136.4 | 54.4 | 139.6 | 80.7 | 0.0 | 46.8 |
| 08/06/2009 | 130.4 | 63.8 | 114.6 | 34.4 | 111.5 | 44.6 | 124.6 | 81.6 | 0.0 | 30.8 |
| 08/07/2009 | 124.8 | 61.1 | 120.4 | 36.1 | 115.0 | 45.9 | 116.8 | 73.9 | 0.0 | 30.7 |
| 08/08/2009 | 125.6 | 61.6 | 104.2 | 31.3 | 96.6 | 38.6 | 106.6 | 64.0 | 0.0 | 30.5 |
| 08/09/2009 | 110.0 | 54.6 | 103.1 | 30.9 | 100.2 | 40.0 | 113.0 | 70.3 | 0.0 | 30.7 |
| 08/10/2009 | 108.1 | 52.0 | 99.2 | 30.0 | 102.6 | 40.9 | 113.1 | 70.2 | 0.0 | 30.9 |
| 08/11/2009 | 110.2 | 53.8 | 101.8 | 30.5 | 96.0 | 38.2 | 113.2 | 70.1 | 0.0 | 31.1 |
| 08/12/2009 | 122.2 | 59.3 | 113.0 | 34.0 | 111.1 | 44.5 | 118.3 | 75.2 | 0.0 | 31.0 |
| 08/13/2009 | 117.7 | 57.5 | 112.9 | 33.9 | 110.5 | 44.2 | 125.8 | 83.2 | 0.1 | 30.4 |

Gas Bubble Trauma Monitoring Results from Representative Sites on the Snake River and Columbia River

| Site | Date | Species | Number of Fish | Number w GBT signs | Number w Fin Signs | % Fin GBT | % Severe Fin GBT | Number of Fish with Fin GBT Listed by Highest Rank | | | |
|-----------------------------|----------|---------------------|----------------|--------------------|--------------------|-----------|------------------|--|--------|--------|--------|
| | | | | | | | | Rank 1 | Rank 2 | Rank 3 | Rank 4 |
| Little Goose Dam | | | | | | | | | | | |
| | 08/04/09 | Chinook + Steelhead | 59 | 1 | 1 | 1.69% | 0.00% | 1 | 0 | 0 | 0 |
| | 08/11/09 | Chinook + Steelhead | 10 | 0 | 0 | 0.00% | 0.00% | 0 | 0 | 0 | 0 |
| Lower Monumental Dam | | | | | | | | | | | |
| | 08/05/09 | Chinook + Steelhead | 9 | 0 | 0 | 0.00% | 0.00% | 0 | 0 | 0 | 0 |
| | 08/12/09 | Chinook + Steelhead | 2 | 0 | 0 | 0.00% | 0.00% | 0 | 0 | 0 | 0 |
| McNary Dam | | | | | | | | | | | |
| | 08/06/09 | Chinook + Steelhead | 100 | 0 | 0 | 0.00% | 0.00% | 0 | 0 | 0 | 0 |
| | 08/10/09 | Chinook + Steelhead | 100 | 0 | 0 | 0.00% | 0.00% | 0 | 0 | 0 | 0 |
| | 08/13/09 | Chinook + Steelhead | 100 | 0 | 0 | 0.00% | 0.00% | 0 | 0 | 0 | 0 |
| Bonneville Dam | | | | | | | | | | | |
| | 08/05/09 | Chinook + Steelhead | 68 | 0 | 0 | 0.00% | 0.00% | 0 | 0 | 0 | 0 |
| | 08/11/09 | Chinook + Steelhead | 100 | 0 | 0 | 0.00% | 0.00% | 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 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>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> |
| 7/31 | 105.2 | 105.4 | 105.7 | 24 | 108.5 | 109.0 | 109.6 | 24 | 108.8 | 109.1 | 109.5 | 24 | 108.7 | 110.1 | 112.9 | 24 | 109.6 | 110.2 | 110.7 | 24 |
| 8/1 | 105.4 | 106.1 | 106.3 | 24 | 108.6 | 109.3 | 109.7 | 24 | 108.4 | 108.9 | 109.3 | 24 | 109.2 | 111.1 | 115.2 | 24 | 109.5 | 110.0 | 110.3 | 24 |
| 8/2 | 105.8 | 106.1 | 106.6 | 24 | 108.3 | 108.7 | 109.5 | 21 | 108.9 | 109.1 | 109.3 | 24 | 108.9 | 109.7 | 110.8 | 21 | 109.5 | 110.2 | 110.6 | 24 |
| 8/3 | 105.6 | 105.9 | 106.1 | 24 | 107.7 | 108.1 | 108.5 | 22 | 108.8 | 109.0 | 109.2 | 24 | 109.2 | 110.3 | 112.6 | 22 | 110.2 | 110.9 | 111.3 | 24 |
| 8/4 | 105.9 | 106.5 | 106.8 | 24 | 107.4 | 107.8 | 108.2 | 23 | 108.4 | 108.6 | 108.9 | 24 | 108.9 | 110.1 | 113.9 | 23 | 109.7 | 110.2 | 110.4 | 24 |
| 8/5 | 105.7 | 106.0 | 106.2 | 24 | 107.5 | 107.9 | 108.2 | 22 | 108.4 | 108.7 | 109.0 | 24 | 108.7 | 109.8 | 113.3 | 22 | 110.5 | 111.2 | 111.4 | 24 |
| 8/6 | 106.1 | 106.7 | 107.5 | 24 | 107.2 | 107.7 | 108.1 | 23 | 108.4 | 108.6 | 108.8 | 24 | 108.4 | 109.5 | 111.9 | 23 | 110.1 | 110.5 | 111.0 | 24 |
| 8/7 | 104.9 | 105.8 | 106.1 | 24 | 106.6 | 106.9 | 107.2 | 23 | 107.8 | 108.0 | 108.3 | 24 | 107.8 | 109.0 | 112.6 | 23 | 108.5 | 108.8 | 109.3 | 24 |
| 8/8 | 103.8 | 104.5 | 104.9 | 24 | 105.9 | 106.4 | 107.0 | 22 | 107.1 | 107.2 | 107.6 | 24 | 108.0 | 109.3 | 112.2 | 22 | 107.5 | 107.9 | 108.3 | 24 |
| 8/9 | 104.2 | 104.4 | 104.5 | 24 | 106.7 | 107.7 | 108.4 | 23 | 106.9 | 107.0 | 107.2 | 24 | 107.9 | 108.7 | 110.7 | 23 | 107.4 | 108.1 | 108.7 | 24 |
| 8/10 | 104.3 | 104.8 | 105.1 | 24 | 107.5 | 108.2 | 109.0 | 23 | 106.8 | 107.0 | 107.2 | 24 | 108.6 | 109.6 | 111.6 | 23 | 107.2 | 107.6 | 107.8 | 24 |
| 8/11 | 104.5 | 105.1 | 105.6 | 24 | 106.6 | 106.9 | 107.3 | 23 | 106.6 | 106.8 | 107.2 | 24 | 106.7 | 107.6 | 110.1 | 23 | 107.6 | 108.0 | 108.3 | 24 |
| 8/12 | 104.6 | 104.9 | 105.2 | 24 | 105.5 | 105.9 | 106.3 | 24 | 106.6 | 106.8 | 107.0 | 24 | 106.2 | 107.5 | 110.1 | 24 | 107.9 | 107.9 | 108.1 | 6 |
| 8/13 | 104.0 | 104.5 | 104.7 | 24 | 105.2 | 105.6 | 106.5 | 22 | 106.7 | 106.8 | 106.9 | 24 | 104.5 | 105.4 | 106.1 | 22 | --- | --- | --- | 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>#</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> |
| 7/31 | 109.1 | 109.5 | 110.1 | 24 | 111.3 | 112.1 | 112.5 | 24 | 113.0 | 113.9 | 114.7 | 24 | 113.0 | 113.3 | 113.4 | 24 | 112.1 | 113.7 | 114.8 | 24 |
| 8/1 | 109.0 | 110.0 | 111.4 | 24 | 111.2 | 112.0 | 112.6 | 24 | 113.1 | 113.7 | 114.0 | 24 | 113.2 | 113.9 | 114.8 | 24 | 111.3 | 112.0 | 112.7 | 24 |
| 8/2 | 109.4 | 110.5 | 111.1 | 24 | 111.1 | 112.1 | 112.7 | 24 | 113.2 | 114.1 | 115.4 | 24 | 112.8 | 113.6 | 114.9 | 24 | 110.2 | 110.8 | 111.6 | 24 |
| 8/3 | 109.4 | 110.3 | 111.0 | 24 | 111.1 | 111.9 | 112.5 | 24 | 113.2 | 113.9 | 114.3 | 24 | 112.8 | 113.1 | 113.9 | 24 | 110.7 | 111.5 | 112.1 | 24 |
| 8/4 | 109.4 | 110.0 | 110.4 | 24 | 110.6 | 111.2 | 111.5 | 24 | 112.4 | 112.9 | 113.4 | 24 | 111.5 | 111.8 | 112.5 | 24 | 110.3 | 111.0 | 111.5 | 24 |
| 8/5 | 110.4 | 111.0 | 111.7 | 24 | 110.3 | 111.2 | 111.5 | 24 | 112.4 | 113.2 | 113.5 | 24 | 111.1 | 111.6 | 111.9 | 24 | 110.1 | 111.3 | 111.8 | 24 |
| 8/6 | 110.1 | 110.7 | 111.3 | 24 | 110.5 | 111.5 | 111.9 | 24 | 112.3 | 113.1 | 113.7 | 24 | 110.5 | 110.7 | 111.0 | 24 | 110.0 | 111.3 | 112.3 | 24 |
| 8/7 | 108.7 | 109.0 | 109.9 | 24 | 110.6 | 111.4 | 112.7 | 24 | 112.0 | 112.8 | 113.5 | 24 | 109.9 | 110.1 | 110.3 | 24 | 109.2 | 110.2 | 111.1 | 24 |
| 8/8 | 108.2 | 109.0 | 110.0 | 24 | 109.1 | 109.9 | 110.8 | 24 | 110.4 | 111.5 | 112.4 | 24 | 109.0 | 109.4 | 109.9 | 24 | 108.0 | 108.7 | 109.4 | 24 |
| 8/9 | 107.6 | 108.4 | 109.6 | 24 | 108.8 | 109.6 | 110.4 | 24 | 110.6 | 111.5 | 112.8 | 24 | 109.6 | 110.1 | 110.6 | 24 | 108.2 | 108.9 | 109.2 | 24 |
| 8/10 | 107.0 | 107.5 | 108.3 | 24 | 108.2 | 108.6 | 109.0 | 24 | 109.8 | 110.6 | 111.2 | 24 | 109.9 | 110.1 | 110.3 | 23 | 109.5 | 110.6 | 111.6 | 23 |
| 8/11 | 108.0 | 108.4 | 109.0 | 24 | 107.2 | 107.5 | 107.7 | 24 | 109.2 | 109.7 | 110.1 | 24 | 109.3 | 109.5 | 109.9 | 24 | 109.4 | 109.8 | 110.3 | 24 |
| 8/12 | 108.4 | 108.4 | 108.9 | 6 | 107.0 | 107.7 | 108.4 | 23 | 109.0 | 109.5 | 109.8 | 23 | 108.5 | 108.8 | 109.2 | 24 | 108.6 | 109.0 | 109.5 | 24 |
| 8/13 | --- | --- | --- | 0 | 107.5 | 108.2 | 109.0 | 24 | 109.3 | 110.2 | 111.0 | 24 | 108.1 | 108.4 | 108.9 | 24 | 108.0 | 108.4 | 108.9 | 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>#</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> |
| 7/31 | 113.5 | 114.1 | 114.6 | 24 | 116.9 | 117.4 | 118.4 | 24 | 116.5 | 117.9 | 119.5 | 24 | 115.8 | 116.1 | 116.4 | 24 | 115.1 | 115.3 | 115.6 | 24 |
| 8/1 | 113.3 | 113.9 | 114.1 | 24 | 116.3 | 116.7 | 117.8 | 24 | 115.9 | 117.1 | 118.9 | 24 | 116.2 | 116.5 | 117.6 | 24 | 115.4 | 115.6 | 116.3 | 24 |
| 8/2 | 112.7 | 113.1 | 113.5 | 24 | 116.7 | 117.8 | 119.7 | 24 | 113.8 | 114.3 | 114.9 | 24 | 115.7 | 116.1 | 116.6 | 24 | 113.9 | 114.3 | 114.6 | 24 |
| 8/3 | 112.6 | 113.0 | 113.3 | 24 | 116.4 | 117.1 | 118.4 | 24 | 113.1 | 113.6 | 114.2 | 24 | 115.1 | 115.7 | 116.2 | 24 | 112.7 | 113.1 | 113.7 | 24 |
| 8/4 | 111.5 | 111.9 | 112.6 | 24 | 115.8 | 116.7 | 119.1 | 24 | 110.8 | 111.7 | 112.2 | 24 | 113.9 | 114.5 | 115.3 | 24 | 111.3 | 111.8 | 112.2 | 24 |
| 8/5 | 111.4 | 111.8 | 112.4 | 24 | 115.5 | 115.9 | 117.2 | 24 | 111.4 | 112.6 | 114.9 | 24 | 114.7 | 115.4 | 116.5 | 24 | 110.7 | 110.8 | 111.3 | 14 |
| 8/6 | 110.6 | 111.0 | 111.9 | 24 | 114.7 | 115.7 | 117.8 | 24 | 110.6 | 111.2 | 111.8 | 24 | 113.6 | 114.7 | 117.1 | 24 | 109.2 | 109.5 | 111.0 | 16 |
| 8/7 | 109.1 | 109.5 | 110.3 | 24 | 114.1 | 114.8 | 115.9 | 24 | 108.4 | 109.1 | 109.5 | 24 | 112.5 | 113.6 | 115.1 | 24 | 108.1 | 109.0 | 109.5 | 24 |
| 8/8 | 109.0 | 109.5 | 110.0 | 24 | 114.6 | 116.0 | 117.1 | 24 | 107.5 | 108.0 | 108.3 | 24 | 114.8 | 115.7 | 116.5 | 24 | 108.5 | 109.1 | 109.4 | 24 |
| 8/9 | 109.0 | 109.5 | 109.7 | 24 | 114.4 | 116.2 | 118.4 | 24 | 106.1 | 106.9 | 107.2 | 24 | 114.5 | 115.8 | 116.5 | 24 | 108.7 | 110.0 | 111.4 | 24 |
| 8/10 | 110.2 | 110.5 | 111.2 | 23 | 114.3 | 115.3 | 118.4 | 23 | 106.9 | 107.4 | 108.1 | 24 | 113.0 | 114.2 | 116.6 | 24 | 110.9 | 112.1 | 113.3 | 24 |
| 8/11 | 109.9 | 110.3 | 110.9 | 24 | 114.1 | 115.4 | 119.3 | 24 | 107.6 | 108.5 | 109.1 | 24 | 113.6 | 115.2 | 116.4 | 24 | 111.1 | 111.6 | 112.2 | 24 |
| 8/12 | 109.6 | 109.7 | 109.9 | 24 | 114.9 | 116.3 | 120.5 | 24 | 107.9 | 108.5 | 108.7 | 24 | 113.7 | 115.2 | 116.5 | 24 | 110.9 | 111.4 | 112.1 | 24 |
| 8/13 | 108.8 | 109.2 | 109.6 | 24 | 114.0 | 115.6 | 119.4 | 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> | <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>Avg</u> | | <u>Avg</u> | <u>High</u> | | <u>Avg</u> | <u>Avg</u> | | <u>High</u> | <u>Avg</u> | | <u>Avg</u> | <u>High</u> | | | |
| 7/31 | 115.7 | 116.0 | 116.1 | 24 | 110.7 | 111.5 | 111.8 | 24 | 109.2 | 109.4 | 109.7 | 24 | 108.4 | 109.5 | 110.4 | 24 | 102.2 | 103.5 | 104.6 | 24 |
| 8/1 | 115.4 | 115.9 | 116.2 | 24 | 111.2 | 112.0 | 112.4 | 24 | 109.2 | 109.5 | 109.9 | 23 | 108.5 | 109.7 | 110.7 | 24 | 102.4 | 103.8 | 104.9 | 24 |
| 8/2 | 113.4 | 114.2 | 114.8 | 24 | 111.0 | 111.9 | 112.4 | 24 | 109.3 | 109.5 | 109.8 | 24 | 108.5 | 109.7 | 110.7 | 24 | 102.2 | 103.4 | 104.6 | 24 |
| 8/3 | 113.1 | 114.1 | 114.8 | 24 | 109.8 | 110.6 | 111.2 | 24 | 109.1 | 109.3 | 109.8 | 24 | 108.4 | 109.5 | 110.5 | 24 | 102.0 | 103.6 | 105.1 | 24 |
| 8/4 | 112.8 | 113.4 | 113.8 | 24 | 108.3 | 109.3 | 109.6 | 24 | 108.3 | 108.8 | 109.1 | 24 | 107.9 | 109.1 | 110.3 | 24 | 102.0 | 103.4 | 104.9 | 24 |
| 8/5 | 111.8 | 112.5 | 112.9 | 24 | 108.4 | 109.7 | 110.3 | 24 | 104.7 | 105.0 | 105.3 | 23 | 105.6 | 106.7 | 107.3 | 24 | 102.0 | 103.4 | 104.7 | 24 |
| 8/6 | 111.5 | 112.3 | 113.1 | 24 | 107.5 | 108.3 | 109.1 | 24 | 101.0 | 101.5 | 104.5 | 24 | 103.4 | 104.4 | 104.9 | 24 | 101.1 | 101.9 | 102.9 | 24 |
| 8/7 | 109.9 | 110.5 | 111.0 | 24 | 104.4 | 105.3 | 106.0 | 24 | 100.1 | 100.4 | 100.5 | 24 | 101.9 | 102.4 | 103.0 | 24 | 100.3 | 101.0 | 101.8 | 24 |
| 8/8 | 110.2 | 110.7 | 111.6 | 24 | 104.7 | 105.7 | 106.3 | 24 | 99.8 | 100.0 | 100.4 | 24 | 102.1 | 103.1 | 104.2 | 24 | 101.3 | 102.8 | 104.1 | 24 |
| 8/9 | 110.2 | 110.9 | 111.5 | 24 | 106.0 | 107.1 | 107.8 | 24 | 99.9 | 100.2 | 100.5 | 24 | 102.4 | 103.6 | 104.7 | 24 | 101.9 | 103.2 | 104.4 | 24 |
| 8/10 | 111.5 | 112.6 | 113.6 | 24 | 106.1 | 107.0 | 107.6 | 24 | 100.0 | 100.3 | 100.7 | 24 | 102.4 | 103.8 | 104.9 | 24 | 101.7 | 102.9 | 103.9 | 24 |
| 8/11 | 112.2 | 113.1 | 113.5 | 24 | 106.7 | 107.7 | 108.3 | 24 | 100.1 | 100.5 | 100.8 | 24 | 102.4 | 103.8 | 104.9 | 24 | 101.7 | 102.8 | 104.0 | 24 |
| 8/12 | 112.3 | 112.8 | 113.3 | 24 | 107.3 | 107.9 | 108.5 | 24 | 100.0 | 100.2 | 100.4 | 24 | 102.1 | 103.2 | 103.9 | 24 | 101.1 | 101.9 | 102.5 | 24 |
| 8/13 | --- | --- | --- | 0 | 107.2 | 107.9 | 108.6 | 24 | 100.0 | 100.2 | 100.5 | 24 | 101.8 | 102.5 | 103.9 | 24 | 101.0 | 101.7 | 102.7 | 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>Avg</u> | <u>Avg</u> | | <u>High</u> | <u>Avg</u> | | <u>Avg</u> | <u>High</u> | | <u>Avg</u> | <u>Avg</u> | | <u>High</u> | <u>Avg</u> | | <u>Avg</u> | <u>High</u> | | | |
| 7/31 | 106.3 | 108.5 | 109.6 | 24 | 103.6 | 103.7 | 104.0 | 24 | 110.4 | 110.5 | 110.8 | 24 | 110.5 | 110.8 | 111.3 | 24 | 113.3 | 113.6 | 114.0 | 24 |
| 8/1 | 106.8 | 109.3 | 111.1 | 24 | 103.4 | 103.5 | 103.6 | 24 | 110.6 | 111.0 | 111.7 | 24 | 110.1 | 110.4 | 110.6 | 24 | 113.0 | 113.4 | 113.9 | 24 |
| 8/2 | 106.5 | 108.8 | 110.6 | 24 | 102.9 | 103.1 | 103.3 | 24 | 110.8 | 111.2 | 111.5 | 24 | 109.8 | 110.0 | 110.2 | 24 | 112.7 | 113.1 | 113.6 | 24 |
| 8/3 | 106.6 | 109.1 | 110.7 | 24 | 103.8 | 105.2 | 105.6 | 24 | 111.5 | 112.4 | 113.4 | 24 | 109.0 | 109.3 | 109.5 | 24 | 112.4 | 112.7 | 113.1 | 24 |
| 8/4 | 106.1 | 108.5 | 110.4 | 24 | 104.6 | 104.9 | 105.6 | 24 | 111.6 | 112.0 | 112.4 | 24 | 108.8 | 109.1 | 109.2 | 24 | 112.3 | 112.8 | 113.3 | 24 |
| 8/5 | 105.5 | 107.4 | 108.5 | 24 | 104.5 | 104.8 | 105.0 | 24 | 111.7 | 111.9 | 112.2 | 24 | 109.5 | 109.7 | 109.9 | 24 | 112.4 | 112.9 | 113.4 | 24 |
| 8/6 | 103.8 | 105.1 | 106.4 | 24 | 104.8 | 104.9 | 105.1 | 24 | 112.1 | 112.3 | 113.2 | 24 | 108.7 | 108.8 | 109.2 | 24 | 111.9 | 112.6 | 113.1 | 24 |
| 8/7 | 102.0 | 102.8 | 103.9 | 20 | 103.6 | 103.8 | 103.9 | 24 | 111.6 | 111.7 | 112.0 | 24 | 107.4 | 107.8 | 108.3 | 24 | 111.3 | 111.9 | 112.2 | 24 |
| 8/8 | 102.6 | 104.7 | 106.2 | 24 | 102.7 | 103.0 | 103.2 | 24 | 111.6 | 111.8 | 112.0 | 24 | 106.0 | 106.3 | 106.7 | 24 | 111.2 | 111.6 | 112.1 | 24 |
| 8/9 | 103.3 | 105.4 | 107.1 | 23 | 102.5 | 102.6 | 102.9 | 24 | 111.1 | 111.4 | 112.0 | 24 | 105.4 | 105.5 | 105.7 | 24 | 111.1 | 111.4 | 111.6 | 24 |
| 8/10 | 103.5 | 105.6 | 107.3 | 23 | 101.2 | 101.5 | 102.1 | 24 | 112.9 | 114.6 | 115.5 | 24 | 105.4 | 105.6 | 105.8 | 24 | 110.9 | 111.2 | 111.4 | 24 |
| 8/11 | 103.4 | 105.5 | 107.1 | 23 | 100.4 | 100.6 | 100.8 | 24 | 112.7 | 114.3 | 115.8 | 24 | 105.4 | 105.6 | 105.8 | 24 | 111.0 | 111.5 | 111.8 | 24 |
| 8/12 | 102.6 | 104.0 | 105.4 | 23 | 100.6 | 100.7 | 100.9 | 24 | 113.0 | 114.5 | 115.4 | 24 | 105.4 | 105.8 | 107.0 | 24 | 110.5 | 110.9 | 111.3 | 24 |
| 8/13 | 102.4 | 103.6 | 104.8 | 22 | 101.8 | 102.2 | 102.5 | 24 | 112.8 | 114.8 | 115.3 | 24 | 107.2 | 107.5 | 107.7 | 24 | 111.2 | 111.5 | 111.8 | 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>Avg</u> | <u>Avg</u> | | <u>High</u> | <u>Avg</u> | | <u>Avg</u> | <u>High</u> | | <u>Avg</u> | <u>Avg</u> | | <u>High</u> | <u>Avg</u> | | <u>Avg</u> | <u>High</u> | | | |
| 7/31 | 110.7 | 110.9 | 111.3 | 24 | 115.3 | 115.8 | 116.2 | 24 | 113.3 | 113.8 | 114.5 | 24 | 114.1 | 114.6 | 114.9 | 24 | --- | --- | --- | 0 |
| 8/1 | 110.4 | 110.7 | 111.1 | 24 | 115.7 | 116.0 | 116.3 | 24 | 112.2 | 112.4 | 112.5 | 24 | 113.5 | 113.9 | 114.7 | 24 | --- | --- | --- | 0 |
| 8/2 | 109.6 | 109.9 | 110.3 | 24 | 115.7 | 116.4 | 116.9 | 24 | 111.9 | 112.2 | 112.7 | 24 | 113.2 | 113.5 | 113.9 | 24 | --- | --- | --- | 0 |
| 8/3 | 109.9 | 110.4 | 111.2 | 24 | 116.1 | 116.3 | 116.5 | 24 | 112.2 | 112.4 | 112.8 | 24 | 112.5 | 113.0 | 113.4 | 24 | --- | --- | --- | 0 |
| 8/4 | 110.0 | 110.2 | 110.6 | 24 | 115.9 | 116.3 | 116.5 | 24 | 112.2 | 112.5 | 112.9 | 24 | 112.5 | 113.0 | 113.6 | 24 | --- | --- | --- | 0 |
| 8/5 | 109.7 | 109.9 | 110.2 | 24 | 116.3 | 116.7 | 116.9 | 24 | 112.0 | 112.2 | 112.4 | 24 | 113.2 | 113.7 | 114.3 | 24 | --- | --- | --- | 0 |
| 8/6 | 108.8 | 109.2 | 109.6 | 24 | 115.7 | 116.3 | 116.4 | 24 | 111.8 | 112.2 | 112.5 | 24 | 112.8 | 113.2 | 113.9 | 24 | --- | --- | --- | 0 |
| 8/7 | 107.2 | 107.7 | 108.1 | 24 | 114.9 | 115.0 | 115.2 | 24 | 109.1 | 110.0 | 111.5 | 24 | 112.7 | 113.0 | 113.6 | 24 | --- | --- | --- | 0 |
| 8/8 | 105.7 | 106.2 | 106.6 | 24 | 115.3 | 115.5 | 115.6 | 24 | 107.3 | 107.8 | 108.4 | 24 | 112.6 | 113.2 | 113.7 | 24 | --- | --- | --- | 0 |
| 8/9 | 105.8 | 105.9 | 106.2 | 24 | 115.3 | 115.4 | 115.6 | 24 | 106.8 | 107.0 | 107.3 | 24 | 113.2 | 113.8 | 114.1 | 24 | --- | --- | --- | 0 |
| 8/10 | 105.0 | 105.3 | 105.7 | 24 | 115.0 | 115.3 | 115.7 | 24 | 106.6 | 106.7 | 106.9 | 24 | 112.7 | 113.3 | 113.6 | 24 | --- | --- | --- | 0 |
| 8/11 | 105.5 | 105.8 | 106.4 | 24 | 115.7 | 116.0 | 116.2 | 24 | 106.8 | 107.0 | 107.5 | 24 | 112.4 | 112.8 | 112.9 | 24 | --- | --- | --- | 0 |
| 8/12 | 106.0 | 106.3 | 106.4 | 24 | 115.6 | 115.8 | 116.0 | 24 | 107.8 | 108.3 | 108.7 | 24 | 112.5 | 113.0 | 113.4 | 24 | --- | --- | --- | 0 |
| 8/13 | 106.4 | 106.6 | 107.0 | 24 | 115.6 | 115.7 | 115.9 | 24 | 108.6 | 108.8 | 109.1 | 24 | 113.2 | 113.6 | 114.0 | 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>#</u> | <u>24 h</u> | <u>12 h</u> | <u>#</u> | <u>24h</u> | <u>12h</u> | <u>#</u> | <u>24h</u> | <u>12h</u> | <u>#</u> | <u>24h</u> | <u>12h</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> | | | | |
| 7/31 | 110.8 | 111.2 | 112.1 | 24 | 115.5 | 116.4 | 117.4 | 24 | 111.2 | 111.7 | 112.3 | 24 | 114.7 | 115.2 | 115.3 | 24 | 110.7 | 110.9 | 111.2 | 24 |
| 8/1 | 111.4 | 112.0 | 113.4 | 24 | 115.4 | 116.0 | 117.1 | 24 | 111.9 | 112.3 | 113.4 | 24 | 114.7 | 115.2 | 115.7 | 24 | 110.3 | 110.8 | 111.2 | 24 |
| 8/2 | 111.9 | 112.3 | 112.8 | 24 | 116.7 | 117.5 | 117.9 | 24 | 111.2 | 111.6 | 111.9 | 24 | 114.6 | 114.8 | 115.1 | 24 | 109.6 | 110.0 | 110.3 | 24 |
| 8/3 | 110.9 | 111.2 | 111.4 | 24 | 116.4 | 116.7 | 116.8 | 24 | 109.2 | 109.7 | 110.3 | 24 | 115.0 | 115.0 | 115.8 | 10 | 108.2 | 108.6 | 108.8 | 24 |
| 8/4 | 110.5 | 110.7 | 111.1 | 24 | 116.6 | 117.0 | 117.3 | 24 | 107.3 | 107.6 | 108.1 | 24 | 114.3 | 114.6 | 114.9 | 24 | 106.6 | 106.9 | 107.2 | 24 |
| 8/5 | 109.5 | 110.0 | 110.9 | 24 | 114.7 | 115.3 | 116.6 | 24 | 106.1 | 106.5 | 106.8 | 24 | 114.9 | 115.4 | 116.1 | 24 | 105.8 | 106.3 | 106.4 | 24 |
| 8/6 | 107.1 | 107.6 | 108.0 | 24 | 114.5 | 115.4 | 115.9 | 24 | 104.8 | 105.2 | 105.5 | 24 | 113.9 | 114.3 | 114.5 | 24 | 104.8 | 105.5 | 106.0 | 24 |
| 8/7 | 105.2 | 105.7 | 106.3 | 24 | --- | --- | --- | 24 | 102.7 | 103.1 | 103.5 | 24 | 113.7 | 114.1 | 114.4 | 24 | 102.6 | 102.8 | 102.9 | 24 |
| 8/8 | 103.4 | 103.6 | 103.8 | 24 | --- | --- | --- | 24 | 100.9 | 101.1 | 101.3 | 24 | 112.9 | 113.8 | 114.5 | 24 | 101.7 | 102.0 | 102.2 | 24 |
| 8/9 | 102.2 | 102.5 | 102.9 | 24 | --- | --- | --- | 24 | 100.2 | 100.4 | 100.5 | 24 | 112.6 | 113.3 | 113.8 | 24 | 102.5 | 103.2 | 103.6 | 24 |
| 8/10 | 101.8 | 102.3 | 102.7 | 24 | --- | --- | --- | 24 | 99.8 | 99.9 | 100.1 | 24 | 112.7 | 113.3 | 113.9 | 24 | 104.2 | 104.8 | 105.0 | 24 |
| 8/11 | 103.4 | 104.3 | 105.2 | 24 | 115.4 | 115.7 | 116.1 | 24 | 99.6 | 99.8 | 100.0 | 24 | 113.1 | 113.6 | 113.9 | 24 | 105.0 | 105.3 | 105.6 | 24 |
| 8/12 | 104.1 | 104.5 | 104.8 | 24 | 115.3 | 116.1 | 116.6 | 24 | 99.6 | 99.8 | 99.9 | 24 | 113.3 | 114.1 | 114.3 | 24 | 105.2 | 105.4 | 105.7 | 24 |
| 8/13 | 104.9 | 105.1 | 105.3 | 24 | 115.5 | 116.4 | 116.6 | 24 | 99.7 | 99.9 | 100.0 | 24 | 113.5 | 114.0 | 114.1 | 24 | 104.7 | 105.0 | 105.3 | 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>#</u> | <u>24 h</u> | <u>12 h</u> | <u>#</u> | <u>24h</u> | <u>12h</u> | <u>#</u> | <u>24h</u> | <u>12h</u> | <u>#</u> | <u>24h</u> | <u>12h</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> | | | | |
| 7/31 | 115.4 | 115.8 | 116.2 | 24 | 112.1 | 112.6 | 113.0 | 24 | --- | --- | --- | 0 | 113.7 | 115.1 | 115.8 | 24 | 113.4 | 113.5 | 114.0 | 24 |
| 8/1 | 115.4 | 115.9 | 116.4 | 24 | 110.2 | 110.8 | 111.9 | 24 | --- | --- | --- | 0 | 115.4 | 116.6 | 117.7 | 24 | 114.4 | 114.8 | 115.7 | 24 |
| 8/2 | 114.7 | 115.0 | 115.4 | 24 | 109.0 | 109.3 | 109.5 | 24 | --- | --- | --- | 0 | 113.6 | 115.0 | 115.6 | 24 | 113.8 | 114.1 | 114.4 | 24 |
| 8/3 | 114.2 | 114.5 | 114.8 | 24 | 107.7 | 108.2 | 108.3 | 24 | --- | --- | --- | 0 | 113.7 | 114.8 | 115.3 | 24 | 113.5 | 113.6 | 114.0 | 24 |
| 8/4 | 113.1 | 113.4 | 113.6 | 24 | 108.6 | 108.6 | 112.0 | 6 | --- | --- | --- | 0 | 114.2 | 115.2 | 115.9 | 24 | 114.1 | 114.5 | 116.6 | 24 |
| 8/5 | 112.4 | 112.9 | 113.2 | 24 | 117.3 | 124.3 | 151.6 | 19 | --- | --- | --- | 0 | 113.3 | 114.8 | 115.9 | 24 | 114.7 | 115.7 | 116.6 | 24 |
| 8/6 | 112.0 | 112.5 | 112.9 | 24 | 103.8 | 104.4 | 105.0 | 24 | --- | --- | --- | 0 | 110.5 | 111.6 | 114.1 | 24 | 114.6 | 115.6 | 116.6 | 24 |
| 8/7 | 110.6 | 110.8 | 111.1 | 24 | 101.9 | 102.4 | 103.0 | 24 | --- | --- | --- | 0 | 110.7 | 111.5 | 112.2 | 24 | 113.4 | 114.5 | 116.4 | 24 |
| 8/8 | 110.8 | 111.0 | 111.2 | 24 | 100.9 | 101.0 | 101.3 | 24 | --- | --- | --- | 0 | 112.2 | 113.5 | 114.2 | 24 | 112.2 | 112.3 | 112.8 | 24 |
| 8/9 | 111.4 | 111.7 | 111.9 | 24 | 101.1 | 101.3 | 101.7 | 24 | --- | --- | --- | 0 | 114.8 | 115.8 | 116.7 | 24 | 112.6 | 112.8 | 112.9 | 24 |
| 8/10 | 112.0 | 112.5 | 112.9 | 24 | 102.2 | 102.7 | 103.6 | 24 | --- | --- | --- | 0 | 114.7 | 115.9 | 116.7 | 24 | 112.7 | 112.9 | 113.1 | 24 |
| 8/11 | 112.2 | 112.5 | 112.8 | 24 | 104.0 | 104.4 | 104.9 | 24 | --- | --- | --- | 0 | 114.8 | 115.4 | 115.7 | 24 | 112.7 | 112.9 | 113.0 | 24 |
| 8/12 | 112.2 | 112.4 | 112.6 | 24 | 105.0 | 105.3 | 105.5 | 24 | --- | --- | --- | 0 | 113.2 | 113.9 | 114.2 | 24 | 113.4 | 114.2 | 118.8 | 24 |
| 8/13 | 111.5 | 111.8 | 112.0 | 24 | 104.8 | 105.2 | 105.5 | 24 | --- | --- | --- | 0 | 112.2 | 113.5 | 114.4 | 24 | 113.7 | 114.7 | 117.6 | 24 |

Two-Week Summary of Passage Indices

Source: Fish Passage Center

Updated: 8/14/2009 13:24

Two-Week Summary of Passage Indices

* One or more of the sites on this date had an incomplete or biased sample.

See Sampling Comments: <http://www.fpc.org/currentDaily/smpcomments.htm>

For clip information see: <http://www.fpc.org/CurrentDaily/catch.htm>

For sockeye and yearling chinook (Snake only) race information see: <http://www.fpc.org/smoltqueries/currentsmppsubmitdata.asp>

| Date | COMBINED YEARLING CHINOOK | | | | | | | | | | |
|-----------------|---------------------------|---------------|---------------|---------------|------------------|------------------|----------------|----------------|------------------|------------------|------------------|
| | WTB (Coll) | IMN (Coll) | GRN (Coll) | LEW (Coll) | LGR (INDEX) | LGS (INDEX) | LMN (INDEX) | RIS (INDEX) | MCN (INDEX) | JDA (INDEX) | BO2 (INDEX) |
| 07/31/2009 * | --- | --- | --- | --- | 0 | 0 | 6 | 0 | 0 | 14 | 0 |
| 08/01/2009 * | --- | --- | --- | --- | 0 | 0 | 11 | 2 | 0 | --- | --- |
| 08/02/2009 * | --- | --- | --- | --- | 0 | 0 | 0 | 0 | 0 | --- | 0 |
| 08/03/2009 * | --- | --- | --- | --- | 0 | 0 | 0 | 0 | 0 | --- | --- |
| 08/04/2009 * | --- | --- | --- | --- | 0 | 0 | 6 | 0 | 0 | 0 | 0 |
| 08/05/2009 * | --- | --- | --- | --- | 0 | 0 | 0 | 0 | 0 | --- | --- |
| 08/06/2009 * | --- | --- | --- | --- | 0 | 0 | 0 | 0 | 10 | --- | 0 |
| 08/07/2009 * | --- | --- | --- | --- | 0 | 0 | 0 | 0 | 0 | 14 | --- |
| 08/08/2009 * | --- | --- | --- | --- | 0 | 0 | 0 | 0 | 0 | --- | 0 |
| 08/09/2009 * | --- | --- | --- | --- | 0 | 0 | 0 | 0 | 0 | --- | --- |
| 08/10/2009 * | --- | --- | --- | --- | 0 | 0 | 0 | 0 | 0 | --- | 0 |
| 08/11/2009 * | --- | --- | --- | --- | 0 | 0 | 0 | 0 | 0 | 7 | --- |
| 08/12/2009 * | --- | --- | --- | --- | 0 | 0 | 0 | 0 | 0 | --- | 0 |
| 08/13/2009 * | --- | --- | --- | --- | 0 | 0 | 0 | 0 | 0 | --- | --- |
| 08/14/2009 * | --- | --- | --- | --- | 0 | --- | --- | 0 | 0 | 0 | 0 |
| Total: | 0 | 0 | 0 | 0 | 0 | 0 | 23 | 2 | 10 | 35 | 0 |
| # Days: | 0 | 0 | 0 | 0 | 15 | 14 | 14 | 15 | 15 | 5 | 8 |
| Average: | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 7 | 0 |
| YTD | 37,667 | 44,693 | 20,207 | 29,713 | 3,081,413 | 2,432,949 | 449,028 | 9,225 | 2,251,664 | 1,032,260 | 1,717,088 |

| Date | COMBINED SUBYEARLING CHINOOK | | | | | | | | | | |
|-----------------|------------------------------|---------------|---------------|---------------|----------------|------------------|----------------|----------------|------------------|------------------|------------------|
| | WTB (Coll) | IMN (Coll) | GRN (Coll) | LEW (Coll) | LGR (INDEX) | LGS (INDEX) | LMN (INDEX) | RIS (INDEX) | MCN (INDEX) | JDA (INDEX) | BO2 (INDEX) |
| 07/31/2009 * | --- | --- | --- | --- | 547 | 1,724 | 567 | 102 | 20,873 | 2,165 | 25,712 |
| 08/01/2009 * | --- | --- | --- | --- | 404 | 794 | 1,274 | 173 | 22,909 | --- | --- |
| 08/02/2009 * | --- | --- | --- | --- | 336 | 750 | 536 | 64 | 12,382 | --- | 12,679 |
| 08/03/2009 * | --- | --- | --- | --- | 232 | 821 | 132 | 75 | 10,302 | --- | --- |
| 08/04/2009 * | --- | --- | --- | --- | 253 | 661 | 169 | 49 | 3,866 | 1,009 | 6,829 |
| 08/05/2009 * | --- | --- | --- | --- | 331 | 1,023 | 352 | 65 | 4,786 | --- | --- |
| 08/06/2009 * | --- | --- | --- | --- | 279 | 983 | 174 | 40 | 14,374 | --- | 9,023 |
| 08/07/2009 * | --- | --- | --- | --- | 385 | 1,198 | 142 | 55 | 9,851 | 1,300 | --- |
| 08/08/2009 * | --- | --- | --- | --- | 472 | 551 | 30 | 38 | 8,308 | --- | 2,182 |
| 08/09/2009 * | --- | --- | --- | --- | 416 | 192 | 42 | 33 | 3,336 | --- | --- |
| 08/10/2009 * | --- | --- | --- | --- | 308 | 164 | 48 | 24 | 1,096 | --- | 1,076 |
| 08/11/2009 * | --- | --- | --- | --- | 288 | 200 | 32 | 32 | 2,603 | 1,066 | --- |
| 08/12/2009 * | --- | --- | --- | --- | 209 | 215 | 99 | 30 | 3,248 | --- | 1,856 |
| 08/13/2009 * | --- | --- | --- | --- | 236 | 367 | 166 | 30 | 7,194 | --- | --- |
| 08/14/2009 * | --- | --- | --- | --- | 279 | --- | --- | 16 | 7,582 | 0 | 2,065 |
| Total: | 0 | 0 | 0 | 0 | 4,975 | 9,643 | 3,763 | 826 | 132,710 | 5,540 | 61,422 |
| # Days: | 0 | 0 | 0 | 0 | 15 | 14 | 14 | 15 | 15 | 5 | 8 |
| Average: | 0 | 0 | 0 | 0 | 332 | 689 | 269 | 55 | 8,847 | 1,108 | 7,678 |
| YTD | 0 | 18 | 15 | 545 | 993,553 | 1,178,401 | 432,480 | 7,966 | 3,595,336 | 1,502,125 | 4,290,932 |

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) | |
| 07/31/2009 | * | --- | --- | --- | --- | 42 | 60 | 6 | 1 | 41 | 14 | 0 |
| 08/01/2009 | * | --- | --- | --- | --- | 37 | 39 | 86 | 0 | 0 | --- | --- |
| 08/02/2009 | * | --- | --- | --- | --- | 32 | 17 | 30 | 1 | 61 | --- | 0 |
| 08/03/2009 | * | --- | --- | --- | --- | 12 | 17 | 12 | 1 | 0 | --- | --- |
| 08/04/2009 | * | --- | --- | --- | --- | 14 | 11 | 6 | 0 | 0 | 0 | 0 |
| 08/05/2009 | * | --- | --- | --- | --- | 16 | 7 | 6 | 0 | 20 | --- | --- |
| 08/06/2009 | * | --- | --- | --- | --- | 5 | 14 | 0 | 0 | 10 | --- | 0 |
| 08/07/2009 | * | --- | --- | --- | --- | 10 | 42 | 0 | 0 | 0 | 0 | --- |
| 08/08/2009 | * | --- | --- | --- | --- | 20 | 1 | 8 | 1 | 0 | --- | 0 |
| 08/09/2009 | * | --- | --- | --- | --- | 20 | 4 | 0 | 0 | 0 | --- | --- |
| 08/10/2009 | * | --- | --- | --- | --- | 32 | 3 | 4 | 1 | 0 | --- | 0 |
| 08/11/2009 | * | --- | --- | --- | --- | 13 | 7 | 0 | 0 | 0 | 0 | --- |
| 08/12/2009 | * | --- | --- | --- | --- | 7 | 9 | 4 | 0 | 0 | --- | 0 |
| 08/13/2009 | * | --- | --- | --- | --- | 88 | 7 | 40 | 1 | 10 | --- | --- |
| 08/14/2009 | * | --- | --- | --- | --- | 75 | --- | --- | 0 | 10 | 0 | 0 |
| <hr/> | | | | | | | | | | | | |
| Total: | | 0 | 0 | 0 | 0 | 423 | 238 | 202 | 6 | 152 | 14 | 0 |
| # Days: | | 0 | 0 | 0 | 0 | 15 | 14 | 14 | 15 | 15 | 5 | 8 |
| Average: | | 0 | 0 | 0 | 0 | 28 | 17 | 14 | 0 | 10 | 3 | 0 |
| YTD | | 0 | 0 | 0 | 332 | 91,918 | 80,930 | 18,928 | 37,588 | 127,100 | 240,409 | 503,265 |

| 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) | |
| 07/31/2009 | * | --- | --- | --- | --- | 4 | 3 | 0 | 1 | 0 | 0 | 73 |
| 08/01/2009 | * | --- | --- | --- | --- | 0 | 6 | 0 | 2 | 0 | --- | --- |
| 08/02/2009 | * | --- | --- | --- | --- | 4 | 1 | 0 | 0 | 0 | --- | 0 |
| 08/03/2009 | * | --- | --- | --- | --- | 4 | 6 | 0 | 0 | 0 | --- | --- |
| 08/04/2009 | * | --- | --- | --- | --- | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08/05/2009 | * | --- | --- | --- | --- | 0 | 0 | 0 | 0 | 0 | --- | --- |
| 08/06/2009 | * | --- | --- | --- | --- | 5 | 0 | 0 | 0 | 10 | --- | 0 |
| 08/07/2009 | * | --- | --- | --- | --- | 0 | 1 | 0 | 0 | 0 | 0 | --- |
| 08/08/2009 | * | --- | --- | --- | --- | 0 | 0 | 0 | 0 | 0 | --- | 0 |
| 08/09/2009 | * | --- | --- | --- | --- | 0 | 0 | 0 | 0 | 0 | --- | --- |
| 08/10/2009 | * | --- | --- | --- | --- | 0 | 0 | 0 | 0 | 0 | --- | 0 |
| 08/11/2009 | * | --- | --- | --- | --- | 0 | 0 | 0 | 0 | 0 | 0 | --- |
| 08/12/2009 | * | --- | --- | --- | --- | 0 | 1 | 0 | 0 | 0 | --- | 0 |
| 08/13/2009 | * | --- | --- | --- | --- | 0 | 1 | 0 | 3 | 0 | --- | --- |
| 08/14/2009 | * | --- | --- | --- | --- | 0 | --- | --- | 0 | 0 | 0 | 0 |
| <hr/> | | | | | | | | | | | | |
| Total: | | 0 | 0 | 0 | 0 | 17 | 19 | 0 | 6 | 10 | 0 | 73 |
| # Days: | | 0 | 0 | 0 | 0 | 15 | 14 | 14 | 15 | 15 | 5 | 8 |
| Average: | | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 9 |
| YTD | | 1,833 | 24,360 | 9,611 | 8,297 | 4,510,908 | 3,563,508 | 727,829 | 17,612 | 803,725 | 940,632 | 677,051 |

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) |
| 07/31/2009 * | --- | --- | --- | --- | 0 | 1 | 0 | 4 | 122 | 0 | 0 |
| 08/01/2009 * | --- | --- | --- | --- | 0 | 0 | 0 | 5 | 41 | --- | --- |
| 08/02/2009 * | --- | --- | --- | --- | 0 | 0 | 6 | 3 | 40 | --- | 0 |
| 08/03/2009 * | --- | --- | --- | --- | 0 | 0 | 6 | 5 | 20 | --- | --- |
| 08/04/2009 * | --- | --- | --- | --- | 0 | 0 | 0 | 0 | 20 | 0 | 0 |
| 08/05/2009 * | --- | --- | --- | --- | 0 | 6 | 0 | 4 | 10 | --- | --- |
| 08/06/2009 * | --- | --- | --- | --- | 0 | 1 | 0 | 4 | 40 | --- | 0 |
| 08/07/2009 * | --- | --- | --- | --- | 0 | 0 | 0 | 16 | 61 | 0 | --- |
| 08/08/2009 * | --- | --- | --- | --- | 0 | 0 | 0 | 6 | 0 | --- | 0 |
| 08/09/2009 * | --- | --- | --- | --- | 0 | 0 | 0 | 1 | 0 | --- | --- |
| 08/10/2009 * | --- | --- | --- | --- | 0 | 0 | 0 | 0 | 0 | --- | 0 |
| 08/11/2009 * | --- | --- | --- | --- | 0 | 0 | 0 | 1 | 10 | 0 | --- |
| 08/12/2009 * | --- | --- | --- | --- | 0 | 1 | 0 | 3 | 31 | --- | 27 |
| 08/13/2009 * | --- | --- | --- | --- | 0 | 0 | 0 | 3 | 30 | --- | --- |
| 08/14/2009 * | --- | --- | --- | --- | 0 | --- | --- | 0 | 0 | 0 | 0 |
| Total: | 0 | 0 | 0 | 0 | 0 | 9 | 12 | 55 | 425 | 0 | 27 |
| # Days: | 0 | 0 | 0 | 0 | 15 | 14 | 14 | 15 | 15 | 5 | 8 |
| Average: | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 4 | 28 | 0 | 3 |
| YTD | 170 | 0 | 0 | 177 | 46,501 | 46,359 | 21,692 | 4,916 | 190,797 | 111,933 | 74,945 |

* 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:

8/14/09 1:24 PM

07/31/09 TO 08/14/09

| | | Species | | | | | | |
|--------------------------------|--------------------------|---------|-----|----|-----|----|-------------|--------|
| Site | Data | CH0 | CH1 | CO | ST | SO | Grand Total | |
| LGR | Sum of NumberCollected | 2,122 | | | 166 | 8 | 2,296 | |
| | Sum of NumberBarged | 2,681 | | | 185 | 12 | 2,878 | |
| | Sum of NumberBypassed | 0 | | | 0 | 0 | 0 | |
| | Sum of Numbertrucked | 0 | | | 0 | 0 | 0 | |
| | Sum of SampleMorts | 15 | | | 2 | 0 | 17 | |
| | Sum of FacilityMorts | 14 | | | 2 | 0 | 16 | |
| | Sum of ResearchMorts | 0 | | | 0 | 0 | 0 | |
| | Sum of TotalProjectMorts | 29 | | | 4 | 0 | 33 | |
| LGS | Sum of NumberCollected | 6,731 | | | 167 | 14 | 7 | 6,919 |
| | Sum of NumberBarged | 7,559 | | | 189 | 17 | 6 | 7,771 |
| | Sum of NumberBypassed | 0 | | | 0 | 0 | 0 | 0 |
| | Sum of Numbertrucked | 0 | | | 0 | 0 | 0 | 0 |
| | Sum of SampleMorts | 81 | | | 14 | 0 | 1 | 96 |
| | Sum of FacilityMorts | 50 | | | 0 | 0 | 0 | 50 |
| | Sum of ResearchMorts | 0 | | | 0 | 0 | 0 | 0 |
| | Sum of TotalProjectMorts | 131 | | | 14 | 0 | 1 | 146 |
| LMN | Sum of NumberCollected | 1,857 | | 12 | 100 | | 6 | 1,975 |
| | Sum of NumberBarged | 1,980 | | 15 | 87 | | 6 | 2,088 |
| | Sum of NumberBypassed | 11 | | 0 | 0 | | 0 | 11 |
| | Sum of Numbertrucked | 0 | | 0 | 0 | | 0 | 0 |
| | Sum of SampleMorts | 9 | | 0 | 1 | | 0 | 10 |
| | Sum of FacilityMorts | 25 | | 0 | 0 | | 0 | 25 |
| | Sum of ResearchMorts | 0 | | 0 | 0 | | 0 | 0 |
| | Sum of TotalProjectMorts | 34 | | 0 | 1 | | 0 | 35 |
| MCN | Sum of NumberCollected | 65,335 | | 5 | 75 | 5 | 210 | 65,630 |
| | Sum of NumberBarged | 64,667 | | 3 | 75 | 4 | 210 | 64,959 |
| | Sum of NumberBypassed | 0 | | 0 | 0 | 0 | 0 | 0 |
| | Sum of Numbertrucked | 0 | | 0 | 0 | 0 | 0 | 0 |
| | Sum of SampleMorts | 89 | | 0 | 0 | 0 | 0 | 89 |
| | Sum of FacilityMorts | 579 | | 2 | 0 | 1 | 0 | 582 |
| | Sum of ResearchMorts | 0 | | 0 | 0 | 0 | 0 | 0 |
| | Sum of TotalProjectMorts | 668 | | 2 | 0 | 1 | 0 | 671 |
| Total Sum of NumberCollected | | 76,045 | | 17 | 508 | 27 | 223 | 76,820 |
| Total Sum of NumberBarged | | 76,887 | | 18 | 536 | 33 | 222 | 77,696 |
| Total Sum of NumberBypassed | | 11 | | 0 | 0 | 0 | 0 | 11 |
| Total Sum of Numbertrucked | | 0 | | 0 | 0 | 0 | 0 | 0 |
| Total Sum of SampleMorts | | 194 | | 0 | 17 | 0 | 1 | 212 |
| Total Sum of FacilityMorts | | 668 | | 2 | 2 | 1 | 0 | 673 |
| Total Sum of ResearchMorts | | 0 | | 0 | 0 | 0 | 0 | 0 |
| Total Sum of TotalProjectMorts | | 862 | | 2 | 19 | 1 | 1 | 885 |

YTD Transportation Summary

Source: Fish Passage Center

Updated:

8/14/09 1:24 PM

TO: 08/14/09

| | | Species | | | | | |
|--------------------------------|--------------------------|-----------|-----------|---------|---------|-----------|-------------|
| Site | Data | CH0 | CH1 | CO | SO | ST | Grand Total |
| LGR | Sum of NumberCollected | 700,463 | 2,352,637 | 65,695 | 33,451 | 3,430,194 | 6,582,440 |
| | Sum of NumberBarged | 680,280 | 1,500,926 | 63,607 | 26,169 | 1,841,961 | 4,112,943 |
| | Sum of NumberBypassed | 15,858 | 847,954 | 1,951 | 7,068 | 1,587,772 | 2,460,603 |
| | Sum of NumberTrucked | 0 | 0 | 0 | 0 | 0 | 0 |
| | Sum of SampleMorts | 249 | 118 | 6 | 22 | 33 | 428 |
| | Sum of FacilityMorts | 4,057 | 2,734 | 131 | 192 | 409 | 7,523 |
| | Sum of ResearchMorts | 19 | 1,035 | 0 | 0 | 19 | 1,073 |
| | Sum of TotalProjectMorts | 4,325 | 3,887 | 137 | 214 | 461 | 9,024 |
| LGS | Sum of NumberCollected | 849,216 | 1,720,161 | 59,226 | 33,649 | 2,517,668 | 5,179,920 |
| | Sum of NumberBarged | 833,201 | 966,563 | 56,366 | 27,767 | 1,057,253 | 2,941,150 |
| | Sum of NumberBypassed | 9,300 | 751,922 | 2,825 | 5,826 | 1,460,070 | 2,229,943 |
| | Sum of NumberTrucked | 0 | 0 | 0 | 0 | 0 | 0 |
| | Sum of SampleMorts | 403 | 49 | 27 | 9 | 20 | 508 |
| | Sum of FacilityMorts | 6,048 | 1,622 | 3 | 47 | 323 | 8,043 |
| | Sum of ResearchMorts | 12 | 4 | 0 | 0 | 0 | 16 |
| | Sum of TotalProjectMorts | 6,463 | 1,675 | 30 | 56 | 343 | 8,567 |
| LMN | Sum of NumberCollected | 325,001 | 321,108 | 13,970 | 16,048 | 518,660 | 1,194,787 |
| | Sum of NumberBarged | 318,339 | 312,079 | 13,932 | 15,870 | 506,287 | 1,166,507 |
| | Sum of NumberBypassed | 5,816 | 8,790 | 9 | 114 | 12,089 | 26,818 |
| | Sum of NumberTrucked | 0 | 0 | 0 | 0 | 0 | 0 |
| | Sum of SampleMorts | 88 | 15 | 2 | 3 | 9 | 117 |
| | Sum of FacilityMorts | 583 | 237 | 8 | 7 | 258 | 1,093 |
| | Sum of ResearchMorts | 0 | 0 | 0 | 0 | 0 | 0 |
| | Sum of TotalProjectMorts | 671 | 252 | 10 | 10 | 267 | 1,210 |
| MCN | Sum of NumberCollected | 1,802,725 | 1,303,737 | 69,871 | 106,340 | 467,735 | 3,750,408 |
| | Sum of NumberBarged | 413,802 | 196 | 448 | 425 | 74 | 414,945 |
| | Sum of NumberBypassed | 1,353,699 | 1,301,926 | 69,357 | 105,852 | 467,487 | 3,298,321 |
| | Sum of NumberTrucked | 0 | 0 | 0 | 0 | 0 | 0 |
| | Sum of SampleMorts | 751 | 149 | 1 | 2 | 14 | 917 |
| | Sum of FacilityMorts | 33,954 | 1,441 | 65 | 59 | 157 | 35,676 |
| | Sum of ResearchMorts | 518 | 25 | 0 | 1 | 3 | 547 |
| | Sum of TotalProjectMorts | 35,223 | 1,615 | 66 | 62 | 174 | 37,140 |
| Total Sum of NumberCollected | | 3,677,405 | 5,697,643 | 208,762 | 189,488 | 6,934,257 | 16,707,555 |
| Total Sum of NumberBarged | | 2,245,622 | 2,779,764 | 134,353 | 70,231 | 3,405,575 | 8,635,545 |
| Total Sum of NumberBypassed | | 1,384,673 | 2,910,592 | 74,142 | 118,860 | 3,527,418 | 8,015,685 |
| Total Sum of NumberTrucked | | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Sum of SampleMorts | | 1,491 | 331 | 36 | 36 | 76 | 1,970 |
| Total Sum of FacilityMorts | | 44,642 | 6,034 | 207 | 305 | 1,147 | 52,335 |
| Total Sum of ResearchMorts | | 549 | 1,064 | 0 | 1 | 22 | 1,636 |
| Total Sum of TotalProjectMorts | | 46,682 | 7,429 | 243 | 342 | 1,245 | 55,941 |

Cumulative Adult Passage at Mainstem Dams Through: 08/13

| 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 | 08/06 | 114525 | 66631 | 125543 | 17554 | 160243 | 11507 | 81936 | 37416 | 78271 | 11621 | 76947 | 10024 | 6104 | 1887 | 6357 | 1000 | 7001 | 1107 |
| TDA | 08/06 | 93908 | 53646 | 95438 | 15801 | 113852 | 9048 | 79916 | 27878 | 65073 | 12206 | 66821 | 7950 | 2480 | 797 | 3336 | 735 | 3538 | 737 |
| JDA | 08/06 | 76806 | 49733 | 81772 | 14925 | 95147 | 7579 | 65989 | 33147 | 63649 | 13680 | 61980 | 8146 | 1650 | 757 | 1979 | 748 | 1849 | 568 |
| MCN | 08/05 | 70413 | 43328 | 68080 | 12133 | 86998 | 7409 | 57137 | 21182 | 54735 | 11239 | 59015 | 7256 | 504 | 181 | 601 | 70 | 666 | 135 |
| IHR | 08/05 | 55435 | 28223 | 53142 | 7757 | 59050 | 4663 | 23820 | 9394 | 23667 | 4962 | 13223 | 2566 | 0 | 0 | 0 | 0 | 0 | 0 |
| LMN | 08/05 | 66931 | 20009 | 54512 | 6885 | 57079 | 4270 | 23332 | 11701 | 27343 | 2890 | 13716 | 1912 | 0 | 0 | 0 | 0 | 0 | 0 |
| LGS | 08/06 | 52642 | 24331 | 50396 | 7805 | 54016 | 4453 | 20212 | 11181 | 21693 | 4801 | 12215 | 2515 | 0 | 0 | 0 | 0 | 0 | 0 |
| LGR | 08/06 | 49667 | 31064 | 50146 | 10946 | 54673 | 5280 | 14373 | 16285 | 22548 | 5060 | 11124 | 2748 | 0 | 0 | 0 | 0 | 0 | 0 |
| PRD | 08/04 | 13469 | 2910 | 12178 | 620 | 18164 | 621 | 49156 | 2086 | 38760 | 2837 | 52638 | 2283 | 0 | 0 | 0 | 0 | 0 | 0 |
| RIS | 08/05 | 12634 | 6003 | 12490 | 1119 | 14914 | 1069 | 43742 | 7448 | 37123 | 2895 | 48705 | 5197 | 0 | 0 | 0 | 0 | 0 | 0 |
| RRH | 08/05 | 6090 | 1086 | 4065 | 371 | 5734 | 430 | 34028 | 4978 | 28138 | 1898 | 35829 | 3535 | 0 | 0 | 0 | 0 | 0 | 0 |
| WEL | 08/05 | 6312 | 1858 | 2708 | 426 | 4250 | 321 | 23115 | 3147 | 18455 | 858 | 24477 | 1432 | 0 | 0 | 0 | 0 | 0 | 0 |
| WFA | 07/26 | 24933 | 2505 | 13924 | 353 | - | - | 728 | 64 | 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 | 363 | 116 | 29 | 6 | 92 | 14 | 177785 | 213583 | 78583 | 258087 | 186058 | 176759 | 95960 |
| TDA | 13 | 0 | 0 | 0 | 0 | 0 | 155508 | 177982 | 66377 | 70476 | 97402 | 69810 | 28871 |
| JDA | 17 | 17 | 2 | 0 | 3 | 0 | 157333 | 193361 | 72397 | 63934 | 73140 | 49649 | 24336 |
| MCN | 2 | 2 | 0 | 0 | 0 | 0 | 121651 | 146915 | 58751 | 30399 | 45251 | 34150 | 11634 |
| IHR | 0 | 0 | 0 | 0 | 0 | 0 | 867 | 538 | 90 | 20630 | 26960 | 16421 | 5782 |
| LMN | 0 | 0 | 0 | 0 | 0 | 0 | 1161 | 721 | 103 | 22842 | 29762 | 15792 | 8171 |
| LGS | 0 | 0 | 0 | 0 | 0 | 0 | 1065 | 593 | 96 | 14934 | 17279 | 9658 | 5351 |
| LGR | 0 | 0 | 0 | 0 | 0 | 0 | 1208 | 877 | 126 | 18405 | 18445 | 13129 | 5966 |
| PRD | 0 | 0 | 4 | -1 | 6 | 0 | 153291 | 196818 | 74773 | 4860 | 6641 | 4417 | 0 |
| RIS | 0 | 0 | 0 | 0 | 1 | 0 | 162759 | 193663 | 70787 | 3868 | 5559 | 3416 | 1866 |
| RRH | 0 | 0 | 0 | 0 | 1 | 0 | 132958 | 161206 | 52250 | 3108 | 4233 | 2345 | 1467 |
| WEL | 15 | 0 | 0 | 0 | 0 | 0 | 134616 | 165010 | 52532 | 1332 | 1787 | 1154 | 640 |
| WFA | 0 | 0 | 14 | 4 | - | - | 0 | 0 | - | 16828 | 18562 | - | - |

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: 08/14/09

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 |