# Fish Passage Center
# Weekly Report #06 - 23

August 11, 2006

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## Summary of Events:

**Water Supply:** Precipitation throughout the Columbia Basin has varied between 0% and 56% of average at individual sub-basins over the beginning of August. Precipitation above The Dalles over August has been 31% of average. Over the entire water year, precipitation has been average or above average at all list locations.

**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 2006 Aug 1-7 | | Water Year 2006 October 1, 2005 to August 7, 2006 | |
|---|---|---|---|---|
| | Observed (inches) | % Average | Observed (inches) | % Average |
| Columbia Above Coulee | 0.06 | 17 | 23.59 | 104 |
| Snake River Above Ice Harbor | 0.11 | 56 | 19.13 | 118 |
| Columbia Above The Dalles | 0.08 | 31 | 22.91 | 108 |
| Kootenai | 0.03 | 8 | 25.25 | 108 |
| Clark Fork | 0.01 | 4 | 17.33 | 110 |
| Flathead | 0.01 | 4 | 23.18 | 111 |
| Pend Oreille/Spokane | 0.00 | 2 | 31.99 | 111 |
| Central Washington | 0.00 | 1 | 11.04 | 131 |
| Snake River Plain | 0.06 | 49 | 12.14 | 118 |
| Salmon/Boise/ Payette | 0.01 | 7 | 23.99 | 129 |
| Clearwater | 0.01 | 2 | 29.76 | 104 |
| SW Washington Cascades/Cowlitz | 0.00 | 0 | 66.43 | 99 |
| Willamette Valley | 0.04 | 15 | 61.32 | 108 |

Table 2 displays the May Final, June Final, and July Final runoff volume forecasts for multiple reservoirs. The July Final forecast at The Dalles between January and July is 114000 Kaf (106% of average).

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

| Location | May Final | | June Final | | July Final | |
|---|---|---|---|---|---|---|
| | % Average (1971-2000) | Probable Runoff Volume (Kaf) | % Average (1971-2000) | Probable Runoff Volume (Kaf) | % Average (1971-2000) | Probable Runoff Volume (Kaf) |
| The Dalles (Jan-July) | 103 | 110000 | 103 | 111000 | 106 | 114000 |
| Grand Coulee (Jan-July) | 98 | 61900 | 101 | 63300 | 106 | 66900 |
| Libby Res. Inflow, MT (Jan-July) | 98 | 6160 | 101 | 6360 | 113 | 7120 |
| Hungry Horse Res. Inflow, MT (Jan-July) | 101 | 2250 | 106 | 2360 | 109 | 2430 |
| Lower Granite Res. Inflow (Apr- July) | 126 | 27100 | 124 | 26700 | 116 | 25100 |
| Brownlee Res. Inflow (Apr-July) | 143 | 9020 | 141 | 8910 | 138 | 8710 |
| Dworshak Res. Inflow (Apr-July) | 101 | 2670 | 106 | 2800 | 105 | 2770 |

Grand Coulee Reservoir is at 1282.8 feet (8-10-06) and has drafted 1.5 feet over the last week. Grand Coulee's end of August draft target is 1280 feet. Outflow has ranged between 81 and 121.2 Kcfs.

The Libby Reservoir is currently at elevation 2450.2 feet (8-10-06) and drafted 1.9 feet last week. Outflows are currently 14 Kcfs.

Hungry Horse is currently at an elevation of 3550.4 feet (8-10-06) and has drafted approximately 1.1 feet in the last week. Hungry Horse outflows have been approximately 3.1 Kcfs.

Dworshak is currently at an elevation of 1556 feet (8-10-06) and drafted approximately 7.3 feet last week. Outflows at Dworshak are currently 9.8-10.1 Kcfs (full powerhouse flow) and are expected to stay at this outflow until August 16th, 2006.

The Brownlee Reservoir was at an elevation of 2057.7 feet on Aug 10th, 2006. Outflows at Hells Canyon have ranged between 12.5 and 15.7 Kcfs over the last week.

According to the June Final Water Supply Forecast, the flow objective this summer is 54.5 Kcfs at Lower Granite (began 6-21-06) and 200 Kcfs at McNary (began 7-1-06). From June 21 to August 10 flows have averaged 42.1 Kcfs at Lower Granite, over the last week flows have averaged 30.3 Kcfs at Lower Granite. Between July 1 and Aug 10, flows at McNary have averaged 179.2 Kcfs; over the last week flows have averaged 150.7 Kcfs.

**Smolt Monitoring**: Subyearling Chinook salmon predominate in the run at all sites as they have for the past several weeks. Small numbers of spring migrants continue to be detected in the system; most notably, sockeye continue to pass McNary Dam and Lower Columbia River dams in steady but low numbers. Subyearling indices decreased at almost all sites over the past week, while average indices increased slightly at John Day Dam.

At Lower Granite Dam, subyearling chinook indices averaged roughly 220 per day over the past week compared to 350 per day the previous week, while at Little Goose and Lower Monumental Dam the subyearling index averaged 250 and 40 (respectively) per day this week.

At Rock Island Dam indices for subyearlings averaged 100 per day this week compared to 200 per day last week. At McNary Dam, subyearling indices were down, averaging 15,000 this week compared to 19,000 per day over the previous week. At John Day Dam, where sampling is limited to every other day due to high temperatures, subyearling indices averaged 5,500 per day this week compared to 4,600 per day last week. At Bonneville Dam subyearling indices decreased with this weeks' average index at 2,500 per day, compared to 4,300 fish per day last week. Bonneville sampling has also been altered due to high temperatures. In fact, with the recent heat wave, temperatures exceeded 72 degrees F on July 26, at which point sampling ceased, for one day, as per the 2006 Fish Passage Plan. With temperatures below 72 again, sampling has commenced. However, when temperatures are at or above 70, sampling crews will work up fish more frequently to reduce holding time at the site.

**Spill:** No spill has occurred at Dworshak Dam over the past week. Summer spill began on June 21 for Lower Snake River projects in accordance with the December 29, 2005 District Court Order and Opinion. Spill at Lower Granite, Little Goose, Lower Monumental, and Ice Harbor dams averaged 57%, 33%, 54%, and 67%, of average daily flow over the past week, respectively. Spill at Lower Granite was provided as18 Kcfs according to the Court's order, or as the flow in excess of that needed to operate one turbine unit at this project. Little Goose Dam met, or exceeded, the Court's Order for spill this past week. Spill at Lower Monumental Dam was provided as the excess flow above that needed for project minimum powerhouse flows. It has been averaging close to the 17 Kcfs specified in the Court's Order. Ice Harbor Dam was also spilling all water above project minimum powerhouse flows.

Summer spill for fish passage was initiated on July 1 at the Lower Columbia River projects. Spill at McNary, John Day, The Dalles, and Bonneville dams was 57%, 30%, 40%, and 63% of average daily flow, respectively. McNary, John Day, and The Dalles dams met the Court's order last week. Spill at Bonneville Dam met the Court's order of 75 Kcfs for day time spill for all days this last week, while the Court's Order of spilling to the gas cap was limited due to total dissolved gas levels at Camas/Washougal.
Total dissolved gas levels have met the TDG waiver requirements over the past week at most locations. A few sampled fish showed signs (Rank 1) of GBT, and that was primarily at Rock Island Dam.

**Adult Fish Passage**: At Bonneville dam, daily counts of fall Chinook began on August 1st, over the last week daily counts have ranged between 324 and 456 fish. The season total of summer Chinook at Bonneville Dam was 97,519 fish, about 123% and 159% of the respective 2005 and 10-year average counts. About 62,422 of the summer Chinook have passed McNary Dam (as of August 10th) with the majority moving upstream into the Mid-Columbia River. Daily counts at Rock Island Dam ranged between 53 and 487 during the week.

At Bonneville Dam, steelhead counts averaged 5,733 per day between August 4th and August 10th. Through August 10th, the steelhead run at Bonneville Dam was 107,945, 77% and 73% of the respective 2005 and 10-year average counts. The daily counts at The Dalles Dam ranged between 620 and 1412 for the week with the cumulative steelhead count through August 10th at 26,685. About 25% of the steelhead counted at Bonneville Dam has passed The Dalles Dam. The majority of the 14,727 steelhead counted at McNary Dam have moved up into the Snake River with the cumulative count at Ice Harbor Dam now at 6,938 for the season. The cumulative count at Priest Rapids Dam is 1,685 for the season.

Adult sockeye salmon passage at Bonneville Dam averaged 6 fish per day through the week with the count at Bonneville through August 10th at 37,030, about 51% and 62% of the respective 2005 and 10-year average counts. About 26,700 of the adult sockeye have been counted at Priest Rapids Dam. One of the major spawning sites for the sockeye is Lake Wenatchee with the other site at Lake Osoyoos (Okanogan basin). To date, 51 sockeye have been counted into the Snake River.

**Hatchery Releases:** No hatchery releases are scheduled for the next two weeks.

## Daily Average Flow and Spill (in kcfs) at Mid-Columbia Projects

| | Grand Coulee | | Chief Joseph | | Wells | | Rocky Reach | | Rock Island | | Wanapum | | Priest Rapids | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | Flow | Spill | Flow | Spill | Flow | Spill | Flow | Spill | Flow | Spill | Flow | Spill | Flow | Spill |
| 07/28/06 | 126.5 | 0.0 | 137.8 | 0.0 | 140.6 | 12.4 | 141.4 | 10.1 | 142.0 | 25.3 | 150.4 | 20.7 | 137.5 | 22.6 |
| 07/29/06 | 97.7 | 0.2 | 99.1 | 0.0 | 102.6 | 8.0 | 98.2 | 10.5 | 100.7 | 24.6 | 119.9 | 1.6 | 127.9 | 21.0 |
| 07/30/06 | 72.5 | 0.2 | 66.6 | 0.0 | 67.8 | 5.9 | 74.5 | 8.1 | 75.9 | 20.2 | 102.7 | 1.3 | 99.6 | 21.0 |
| 07/31/06 | 123.5 | 0.2 | 121.8 | 0.0 | 123.8 | 8.6 | 118.5 | 10.7 | 116.2 | 26.7 | 88.6 | 1.5 | 81.6 | 21.0 |
| 08/01/06 | 97.7 | 0.2 | 103.7 | 0.0 | 110.0 | 7.8 | 112.7 | 8.7 | 115.7 | 25.1 | 120.9 | 1.8 | 113.4 | 23.6 |
| 08/02/06 | 121.2 | 0.2 | 119.1 | 0.0 | 117.5 | 9.4 | 112.6 | 9.0 | 114.8 | 23.1 | 110.5 | 2.0 | 103.3 | 22.4 |
| 08/03/06 | 101.8 | 0.1 | 107.8 | 0.0 | 117.3 | 9.7 | 117.0 | 10.0 | 115.3 | 23.2 | 119.6 | 3.4 | 115.9 | 24.6 |
| 08/04/06 | 83.3 | 0.2 | 84.4 | 0.0 | 89.1 | 6.5 | 89.3 | 9.1 | 90.4 | 22.5 | 111.5 | 2.0 | 114.5 | 20.9 |
| 08/05/06 | 104.3 | 0.1 | 110.5 | 0.0 | 104.6 | 6.9 | 101.8 | 7.9 | 103.0 | 19.4 | 93.3 | 1.6 | 83.1 | 22.6 |
| 08/06/06 | 81.0 | 0.2 | 72.7 | 0.0 | 81.4 | 6.5 | 80.8 | 6.5 | 82.7 | 15.1 | 88.7 | 1.9 | 90.1 | 24.0 |
| 08/07/06 | 121.2 | 0.2 | 121.5 | 0.0 | 125.8 | 8.3 | 125.4 | 9.0 | 124.9 | 24.0 | 126.7 | 9.8 | 120.2 | 22.2 |
| 08/08/06 | 121.1 | 0.2 | 114.5 | 0.0 | 116.5 | 7.7 | 111.9 | 9.4 | 113.1 | 23.4 | 120.6 | 2.3 | 115.6 | 23.5 |
| 08/09/06 | 94.6 | 0.2 | 101.0 | 0.0 | 105.5 | 7.6 | 112.6 | 9.8 | 115.0 | 21.5 | 128.3 | 1.6 | 129.3 | 21.7 |
| 08/10/06 | 90.0 | 0.2 | 92.4 | 0.0 | 95.0 | 6.9 | 86.4 | 7.2 | 85.8 | 17.7 | 91.7 | 1.3 | 88.8 | 23.7 |

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

| | Dworshak | | Brownlee | Hells Canyon | Lower Granite | | Little Goose | | Lower Monumental | | Ice Harbor | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | Flow | Spill | Inflow | Outflow | Flow | Spill | Flow | Spill | Flow | Spill | Flow | Spill |
| 07/28/06 | 12.0 | 2.2 | 11.2 | 14.3 | 32.0 | 18.0 | 29.2 | 9.4 | 28.2 | 15.1 | 28.9 | 17.9 |
| 07/29/06 | 11.9 | 2.1 | 11.2 | 11.8 | 33.7 | 18.0 | 33.9 | 10.7 | 33.1 | 17.0 | 31.9 | 21.1 |
| 07/30/06 | 11.9 | 2.1 | 10.3 | 9.8 | 31.6 | 17.8 | 30.5 | 9.9 | 30.7 | 16.4 | 31.2 | 20.5 |
| 07/31/06 | 10.8 | 0.9 | 10.1 | 8.1 | 29.1 | 16.6 | 29.6 | 9.8 | 28.7 | 16.4 | 30.2 | 20.1 |
| 08/01/06 | 9.8 | 0.0 | 11.0 | 8.0 | 25.5 | 13.1 | 26.3 | 9.3 | 25.9 | 13.4 | 27.9 | 17.6 |
| 08/02/06 | 9.8 | 0.0 | 10.4 | 10.7 | 25.3 | 12.9 | 24.5 | 9.3 | 24.0 | 11.7 | 25.4 | 15.1 |
| 08/03/06 | 9.8 | 0.0 | 11.3 | 13.5 | 28.1 | 15.9 | 27.5 | 9.6 | 26.7 | 13.3 | 25.1 | 15.1 |
| 08/04/06 | 9.9 | 0.0 | 10.8 | 12.8 | 30.2 | 16.5 | 28.7 | 9.8 | 27.6 | 13.6 | 24.3 | 16.2 |
| 08/05/06 | 9.9 | 0.0 | 11.4 | 14.0 | 30.8 | 17.0 | 30.9 | 10.2 | 30.4 | 16.4 | 31.4 | 21.3 |
| 08/06/06 | 9.9 | 0.0 | 11.2 | 13.2 | 31.0 | 18.1 | 30.8 | 10.0 | 31.9 | 17.0 | 29.2 | 19.3 |
| 08/07/06 | 10.0 | 0.0 | 11.8 | 14.7 | 29.2 | 16.0 | 29.0 | 9.6 | 30.5 | 16.0 | 31.1 | 21.4 |
| 08/08/06 | 10.0 | 0.0 | 10.7 | 15.7 | 30.1 | 16.8 | 28.2 | 9.5 | 27.8 | 15.4 | 27.2 | 17.5 |
| 08/09/06 | 10.0 | 0.0 | 11.9 | 12.5 | 30.6 | 18.1 | 29.7 | 10.0 | 28.2 | 15.2 | 28.6 | 19.1 |
| 08/10/06 | 10.1 | 0.0 | --- | --- | 30.1 | 18.1 | 31.8 | 10.5 | 29.8 | 17.2 | 28.5 | 18.9 |

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

| | McNary | | John Day | | The Dalles | | Bonneville | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Date | Flow | Spill | Flow | Spill | Flow | Spill | Flow | Spill | PH1 | PH2 |
| 07/28/06 | 172.6 | 104.0 | 143.1 | 43.0 | 144.6 | 57.7 | 153.2 | 87.8 | 0.0 | 53.9 |
| 07/29/06 | 189.0 | 112.9 | 165.5 | 49.7 | 152.8 | 60.7 | 167.4 | 87.8 | 0.0 | 68.1 |
| 07/30/06 | 159.1 | 73.3 | 153.2 | 46.5 | 149.5 | 60.0 | 154.8 | 87.9 | 0.0 | 55.4 |
| 07/31/06 | 130.0 | 52.0 | 128.9 | 38.2 | 129.1 | 51.6 | 150.0 | 88.0 | 0.0 | 50.5 |
| 08/01/06 | 150.3 | 84.8 | 135.0 | 40.3 | 130.3 | 51.8 | 138.8 | 86.0 | 1.7 | 39.6 |
| 08/02/06 | 148.8 | 88.7 | 136.1 | 41.2 | 133.2 | 53.7 | 142.5 | 84.8 | 1.4 | 44.7 |
| 08/03/06 | 146.1 | 65.5 | 147.0 | 43.9 | 147.3 | 58.3 | 160.9 | 90.4 | 10.7 | 48.4 |
| 08/04/06 | 162.0 | 63.7 | 143.2 | 43.1 | 136.0 | 54.1 | 143.9 | 92.0 | 0.3 | 40.1 |
| 08/05/06 | 140.5 | 78.1 | 131.6 | 39.4 | 128.6 | 51.7 | 143.3 | 91.7 | 0.1 | 40.0 |
| 08/06/06 | 137.4 | 81.4 | 129.3 | 39.1 | 126.5 | 50.9 | 137.6 | 90.3 | 0.0 | 35.8 |
| 08/07/06 | 142.3 | 64.1 | 128.3 | 38.5 | 125.8 | 49.5 | 137.2 | 87.4 | 0.0 | 38.3 |
| 08/08/06 | 152.5 | 59.8 | 126.0 | 38.4 | 122.3 | 48.6 | 134.9 | 86.7 | 0.0 | 36.8 |
| 08/09/06 | 166.4 | 92.9 | 157.2 | 46.9 | 149.3 | 59.3 | 152.5 | 87.1 | 1.0 | 53.0 |
| 08/10/06 | 153.8 | 91.1 | 134.2 | 40.0 | 131.8 | 52.5 | 149.0 | 88.8 | 0.0 | 48.7 |

# 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** | | | | | | | | | | | |
| | 08/01/06 | Chinook + Steelhead | 26 | 0 | 0 | 0.00% | 0.00% | 0 | 0 | 0 | 0 |
| | 08/08/06 | Chinook + Steelhead | 2 | 0 | 0 | 0.00% | 0.00% | 0 | 0 | 0 | 0 |
| **Lower Monumental Dam** | | | | | | | | | | | |
| | 08/07/06 | Chinook + Steelhead | 2 | 0 | 0 | 0.00% | 0.00% | 0 | 0 | 0 | 0 |
| **McNary Dam** | | | | | | | | | | | |
| | 08/03/06 | Chinook + Steelhead | 100 | 0 | 0 | 0.00% | 0.00% | 0 | 0 | 0 | 0 |
| | 08/07/06 | Chinook + Steelhead | 100 | 0 | 0 | 0.00% | 0.00% | 0 | 0 | 0 | 0 |
| **Bonneville Dam** | | | | | | | | | | | |
| | 08/01/06 | Chinook + Steelhead | 100 | 0 | 0 | 0.00% | 0.00% | 0 | 0 | 0 | 0 |
| | 08/04/06 | Chinook + Steelhead | 95 | 1 | 1 | 1.05% | 0.00% | 1 | 0 | 0 | 0 |
| | 08/08/06 | Chinook + Steelhead | 100 | 0 | 0 | 0.00% | 0.00% | 0 | 0 | 0 | 0 |
| **Rock Island Dam** | | | | | | | | | | | |
| | 08/03/06 | Chinook + Steelhead | 50 | 2 | 2 | 4.00% | 0.00% | 2 | 0 | 0 | 0 |
| | 08/07/06 | Chinook + Steelhead | 100 | 2 | 2 | 2.00% | 0.00% | 2 | 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**

| | Hungry H. Dnst | | | | Boundary | | | | Grand Coulee | | | | Grand C. Tlwr | | | | Chief Joseph | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 24 h | 12 h | | # | 24 h | 12 h | | # | 24 h | 12 h | | # | 24 h | 12 h | | # | 24 h | 12 h | | # |
| Date | Avg | Avg | High | hr | Avg | Avg | High | hr | Avg | Avg | High | hr | Avg | Avg | High | hr | Avg | Avg | High | hr |
| 7/28 | 107 | 108 | 108 | 24 | 116 | 116 | 117 | 14 | 113 | 113 | 114 | 24 | 112 | 113 | 117 | 14 | 113 | 114 | 114 | 24 |
| 7/29 | 107 | 108 | 108 | 24 | 116 | 117 | 117 | 24 | 112 | 113 | 113 | 24 | 112 | 114 | 118 | 24 | 113 | 113 | 114 | 24 |
| 7/30 | 108 | 108 | 108 | 24 | 116 | 116 | 116 | 24 | 112 | 112 | 113 | 24 | 111 | 112 | 117 | 24 | 112 | 112 | 112 | 24 |
| 7/31 | 107 | 107 | 107 | 11 | 116 | 117 | 117 | 24 | 111 | 112 | 112 | 24 | 111 | 112 | 115 | 24 | 111 | 111 | 112 | 24 |
| 8/1 | --- | --- | --- | 0 | 116 | 116 | 116 | 24 | 111 | 111 | 112 | 24 | 110 | 111 | 111 | 24 | 111 | 111 | 112 | 24 |
| 8/2 | 100 | 100 | 100 | 1 | 114 | 115 | 115 | 24 | 111 | 111 | 111 | 24 | 110 | 111 | 115 | 24 | 111 | 112 | 112 | 24 |
| 8/3 | --- | --- | --- | 0 | 114 | 115 | 116 | 24 | 111 | 111 | 112 | 24 | 110 | 111 | 115 | 24 | 111 | 111 | 112 | 24 |
| 8/4 | 108 | 108 | 108 | 5 | 114 | 114 | 115 | 24 | 111 | 111 | 111 | 24 | 110 | 112 | 116 | 24 | 111 | 111 | 112 | 24 |
| 8/5 | 107 | 108 | 109 | 24 | 113 | 113 | 113 | 17 | 110 | 111 | 111 | 24 | 111 | 111 | 114 | 17 | 110 | 111 | 112 | 24 |
| 8/6 | 106 | 107 | 107 | 24 | 113 | 114 | 115 | 24 | 109 | 110 | 111 | 24 | 112 | 113 | 116 | 24 | 111 | 111 | 111 | 24 |
| 8/7 | 107 | 108 | 108 | 24 | 113 | 114 | 114 | 24 | 110 | 110 | 111 | 24 | 110 | 111 | 114 | 24 | 111 | 112 | 113 | 24 |
| 8/8 | 107 | 107 | 108 | 24 | 113 | 113 | 114 | 24 | 109 | 110 | 110 | 24 | 110 | 111 | 116 | 24 | 111 | 111 | 112 | 24 |
| 8/9 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 8/10 | 105 | 105 | 106 | 9 | 111 | 111 | 112 | 18 | 108 | 108 | 108 | 10 | 109 | 110 | 116 | 18 | 109 | 109 | 110 | 24 |

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

| | Chief J. Dnst | | | | Wells | | | | Wells Dwnstrm | | | | Rocky Reach | | | | Rocky R. Tlwr | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 24 h | 12 h | | # | 24 h | 12 h | | # | 24 h | 12 h | | # | 24 h | 12 h | | # | 24 h | 12 h | | # |
| Date | Avg | Avg | High | hr | Avg | Avg | High | hr | Avg | Avg | High | hr | Avg | Avg | High | hr | Avg | Avg | High | hr |
| 7/28 | 114 | 114 | 115 | 24 | 113 | 113 | 114 | 24 | 115 | 116 | 119 | 24 | 114 | 114 | 114 | 24 | 114 | 114 | 115 | 24 |
| 7/29 | 113 | 114 | 115 | 24 | 111 | 112 | 113 | 24 | 113 | 114 | 114 | 24 | 112 | 113 | 113 | 24 | 113 | 113 | 113 | 24 |
| 7/30 | 111 | 112 | 113 | 24 | 109 | 109 | 110 | 24 | 111 | 111 | 113 | 24 | 111 | 111 | 112 | 24 | 111 | 112 | 113 | 24 |
| 7/31 | 110 | 111 | 112 | 24 | 109 | 109 | 110 | 24 | 110 | 111 | 112 | 24 | 109 | 110 | 110 | 24 | 110 | 110 | 111 | 24 |
| 8/1 | 111 | 111 | 112 | 24 | 109 | 110 | 110 | 24 | 111 | 112 | 112 | 24 | 109 | 109 | 109 | 24 | 110 | 110 | 110 | 24 |
| 8/2 | 111 | 112 | 112 | 24 | 109 | 110 | 110 | 24 | 111 | 112 | 112 | 24 | 109 | 109 | 110 | 24 | 110 | 110 | 111 | 24 |
| 8/3 | 110 | 111 | 111 | 24 | 111 | 112 | 113 | 24 | 114 | 115 | 118 | 24 | 110 | 111 | 111 | 24 | 111 | 111 | 112 | 24 |
| 8/4 | 111 | 112 | 113 | 24 | 111 | 111 | 112 | 24 | 112 | 113 | 113 | 24 | 111 | 111 | 112 | 24 | 111 | 112 | 112 | 24 |
| 8/5 | 110 | 111 | 111 | 24 | 110 | 110 | 111 | 24 | 111 | 112 | 113 | 24 | 112 | 112 | 112 | 24 | 112 | 112 | 113 | 24 |
| 8/6 | 111 | 111 | 112 | 24 | 111 | 111 | 112 | 24 | 112 | 113 | 114 | 24 | 112 | 112 | 113 | 24 | 112 | 112 | 112 | 24 |
| 8/7 | 111 | 112 | 112 | 24 | 111 | 111 | 112 | 24 | 112 | 113 | 114 | 24 | 111 | 112 | 112 | 23 | 112 | 112 | 112 | 23 |
| 8/8 | 111 | 112 | 112 | 24 | 111 | 111 | 111 | 24 | 112 | 113 | 113 | 24 | 111 | 111 | 112 | 24 | 112 | 112 | 112 | 24 |
| 8/9 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 8/10 | 109 | 110 | 111 | 24 | 110 | 110 | 112 | 24 | 111 | 112 | 113 | 24 | 110 | 110 | 111 | 24 | 111 | 111 | 112 | 24 |

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

| | Rock Island | | | | Rock I. Tlwr | | | | Wanapum | | | | Wanapum Tlwr | | | | Priest Rapids | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 24 h | 12 h | | # | 24 h | 12 h | | # | 24 h | 12 h | | # | 24 h | 12 h | | # | 24 h | 12 h | | # |
| Date | Avg | Avg | High | hr | Avg | Avg | High | hr | Avg | Avg | High | hr | Avg | Avg | High | hr | Avg | Avg | High | hr |
| 7/28 | 114 | 114 | 115 | 24 | 118 | 119 | 119 | 24 | 111 | 112 | 112 | 23 | 112 | 112 | 113 | 23 | 110 | 110 | 111 | 23 |
| 7/29 | 112 | 113 | 113 | 24 | 117 | 118 | 119 | 24 | 110 | 111 | 112 | 23 | 110 | 111 | 112 | 23 | 110 | 110 | 112 | 23 |
| 7/30 | 111 | 111 | 112 | 24 | 117 | 117 | 119 | 24 | 108 | 109 | 109 | 23 | 108 | 108 | 109 | 23 | 107 | 108 | 108 | 23 |
| 7/31 | 111 | 111 | 112 | 24 | 116 | 117 | 118 | 24 | 110 | 111 | 113 | 23 | 108 | 109 | 110 | 23 | 107 | 108 | 108 | 23 |
| 8/1 | 110 | 110 | 111 | 24 | 115 | 116 | 118 | 24 | 109 | 109 | 110 | 23 | 108 | 109 | 109 | 23 | 107 | 108 | 108 | 23 |
| 8/2 | 110 | 110 | 111 | 24 | 115 | 115 | 116 | 24 | 109 | 109 | 111 | 23 | 109 | 109 | 110 | 23 | 107 | 108 | 110 | 23 |
| 8/3 | 110 | 112 | 113 | 24 | 116 | 117 | 118 | 24 | 110 | 111 | 113 | 23 | 110 | 110 | 111 | 23 | 108 | 109 | 110 | 23 |
| 8/4 | 111 | 111 | 112 | 24 | 117 | 117 | 117 | 24 | 110 | 110 | 111 | 23 | 110 | 110 | 112 | 23 | 109 | 110 | 110 | 23 |
| 8/5 | 111 | 112 | 113 | 24 | 116 | 116 | 117 | 24 | 111 | 113 | 114 | 23 | 109 | 110 | 111 | 23 | 108 | 109 | 111 | 23 |
| 8/6 | 112 | 113 | 113 | 24 | 116 | 117 | 118 | 24 | 112 | 113 | 113 | 23 | 111 | 112 | 112 | 23 | 111 | 112 | 113 | 23 |
| 8/7 | 112 | 113 | 114 | 23 | 117 | 118 | 119 | 23 | 112 | 114 | 115 | 23 | 112 | 112 | 113 | 23 | 112 | 112 | 114 | 23 |
| 8/8 | 111 | 112 | 112 | 24 | 116 | 117 | 118 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 8/9 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 8/10 | 111 | 111 | 112 | 24 | 116 | 117 | 118 | 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**

| | Priest R. Dnst | | | | Pasco | | | | Dworshak | | | | Clrwtr-Peck | | | | Anatone | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 24 h | 12 h | | # | 24 h | 12 h | | # | 24 h | 12 h | | # | 24 h | 12 h | | # | 24 h | 12 h | | # |
| Date | Avg | Avg | High | hr | Avg | Avg | High | hr | Avg | Avg | High | hr | Avg | Avg | High | hr | Avg | Avg | High | hr |
| 7/28 | 112 | 112 | 113 | 23 | 109 | 109 | 109 | 24 | 104 | 104 | 105 | 24 | 106 | 107 | 108 | 24 | 102 | 103 | 105 | 24 |
| 7/29 | 112 | 113 | 113 | 23 | 107 | 107 | 108 | 24 | 104 | 104 | 104 | 24 | 105 | 106 | 107 | 24 | 102 | 103 | 104 | 24 |
| 7/30 | 110 | 111 | 111 | 23 | 105 | 106 | 107 | 24 | 103 | 104 | 104 | 24 | 105 | 106 | 107 | 24 | 101 | 102 | 104 | 24 |
| 7/31 | 110 | 110 | 111 | 23 | 106 | 107 | 108 | 24 | 102 | 103 | 103 | 24 | 104 | 105 | 106 | 24 | 100 | 102 | 103 | 24 |
| 8/1 | 110 | 111 | 112 | 23 | 106 | 107 | 107 | 24 | 100 | 100 | 101 | 24 | 102 | 104 | 105 | 24 | 100 | 101 | 103 | 24 |
| 8/2 | 110 | 111 | 112 | 23 | 106 | 107 | 108 | 24 | 100 | 100 | 100 | 24 | 102 | 103 | 105 | 24 | 100 | 101 | 103 | 24 |
| 8/3 | 111 | 112 | 113 | 23 | 107 | 108 | 108 | 24 | 100 | 100 | 101 | 24 | 102 | 104 | 105 | 24 | 100 | 101 | 102 | 24 |
| 8/4 | 112 | 112 | 112 | 23 | 108 | 108 | 109 | 24 | 100 | 101 | 101 | 24 | 102 | 104 | 105 | 24 | 99 | 100 | 101 | 24 |
| 8/5 | 111 | 112 | 113 | 23 | 107 | 108 | 108 | 24 | 100 | 100 | 101 | 24 | 102 | 104 | 105 | 24 | 99 | 100 | 101 | 24 |
| 8/6 | 112 | 113 | 114 | 23 | 108 | 109 | 109 | 24 | 100 | 101 | 101 | 24 | 102 | 104 | 105 | 24 | 99 | 100 | 101 | 24 |
| 8/7 | 113 | 114 | 114 | 23 | 108 | 108 | 110 | 17 | 100 | 101 | 101 | 22 | 103 | 104 | 106 | 22 | 99 | 100 | 101 | 24 |
| 8/8 | --- | --- | --- | 0 | 108 | 108 | 109 | 16 | 100 | 101 | 101 | 24 | 103 | 104 | 105 | 24 | 99 | 100 | 104 | 24 |
| 8/9 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 8/10 | --- | --- | --- | 0 | 107 | 107 | 108 | 5 | 100 | 100 | 101 | 9 | 100 | 100 | 101 | 9 | 100 | 100 | 101 | 9 |

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

| | Clrwtr-Lewiston | | | | Lower Granite | | | | L. Granite Tlwr | | | | Little Goose | | | | L. Goose Tlwr | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 24 h | 12 h | | # | 24 h | 12 h | | # | 24 h | 12 h | | # | 24 h | 12 h | | # | 24 h | 12 h | | # |
| Date | Avg | Avg | High | hr | Avg | Avg | High | hr | Avg | Avg | High | hr | Avg | Avg | High | hr | Avg | Avg | High | hr |
| 7/28 | 105 | 107 | 109 | 24 | 104 | 104 | 105 | 24 | 115 | 115 | 116 | 24 | 111 | 111 | 111 | 24 | 112 | 112 | 112 | 24 |
| 7/29 | 105 | 107 | 108 | 24 | 103 | 103 | 103 | 24 | 115 | 115 | 115 | 24 | 109 | 109 | 109 | 24 | 111 | 111 | 112 | 24 |
| 7/30 | 104 | 106 | 108 | 24 | 103 | 103 | 104 | 24 | 114 | 115 | 115 | 24 | 107 | 107 | 109 | 22 | 110 | 111 | 111 | 24 |
| 7/31 | 104 | 106 | 108 | 24 | 103 | 103 | 104 | 24 | 113 | 114 | 115 | 24 | 105 | 106 | 106 | 24 | 110 | 111 | 111 | 24 |
| 8/1 | 103 | 105 | 107 | 24 | 102 | 102 | 102 | 24 | 110 | 111 | 112 | 24 | 105 | 105 | 105 | 24 | 110 | 111 | 111 | 24 |
| 8/2 | 103 | 106 | 107 | 24 | 101 | 101 | 102 | 24 | 110 | 110 | 110 | 24 | 105 | 105 | 105 | 24 | 110 | 110 | 111 | 24 |
| 8/3 | 103 | 106 | 107 | 24 | 101 | 101 | 101 | 24 | 113 | 115 | 115 | 24 | 105 | 105 | 105 | 24 | 110 | 111 | 112 | 24 |
| 8/4 | 103 | 105 | 107 | 24 | 101 | 101 | 101 | 24 | 113 | 114 | 115 | 24 | 104 | 105 | 105 | 24 | 110 | 111 | 111 | 24 |
| 8/5 | 103 | 105 | 107 | 24 | 101 | 101 | 101 | 24 | 113 | 114 | 114 | 24 | 106 | 107 | 108 | 24 | 111 | 112 | 112 | 24 |
| 8/6 | 103 | 105 | 107 | 24 | 101 | 102 | 102 | 24 | 114 | 114 | 115 | 24 | 106 | 107 | 108 | 24 | 111 | 112 | 112 | 24 |
| 8/7 | 104 | 106 | 107 | 22 | 102 | 102 | 103 | 24 | 113 | 114 | 114 | 24 | 107 | 107 | 108 | 24 | 111 | 112 | 112 | 24 |
| 8/8 | 103 | 105 | 107 | 24 | 102 | 103 | 103 | 24 | 114 | 115 | 115 | 24 | 107 | 108 | 108 | 24 | 112 | 114 | 118 | 24 |
| 8/9 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 8/10 | 101 | 101 | 102 | 9 | 101 | 101 | 102 | 9 | 115 | 115 | 115 | 9 | 108 | 108 | 108 | 9 | 111 | 111 | 112 | 9 |

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

| | Lower Mon. | | | | L. Mon. Tlwr | | | | Ice Harbor | | | | Ice Harbor Tlwr | | | | McNary-Oregon | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 24 h | 12 h | | # | 24 h | 12 h | | # | 24 h | 12 h | | # | 24 h | 12 h | | # | 24 h | 12 h | | # |
| Date | Avg | Avg | High | hr | Avg | Avg | High | hr | Avg | Avg | High | hr | Avg | Avg | High | hr | Avg | Avg | High | hr |
| 7/28 | 109 | 110 | 110 | 24 | 115 | 117 | 118 | 24 | 112 | 113 | 113 | 24 | 111 | 112 | 114 | 24 | --- | --- | --- | 0 |
| 7/29 | 109 | 109 | 109 | 24 | 116 | 116 | 116 | 24 | 111 | 111 | 112 | 24 | 113 | 114 | 115 | 24 | --- | --- | --- | 0 |
| 7/30 | 106 | 107 | 108 | 24 | 115 | 116 | 116 | 23 | 108 | 109 | 111 | 24 | 112 | 113 | 113 | 24 | --- | --- | --- | 0 |
| 7/31 | 105 | 106 | 106 | 24 | 116 | 116 | 116 | 24 | 106 | 106 | 107 | 24 | 113 | 113 | 114 | 24 | --- | --- | --- | 0 |
| 8/1 | 105 | 105 | 106 | 24 | 114 | 116 | 116 | 24 | 106 | 106 | 106 | 24 | 112 | 113 | 113 | 24 | --- | --- | --- | 0 |
| 8/2 | 105 | 105 | 105 | 24 | 113 | 113 | 114 | 24 | 106 | 106 | 106 | 24 | 110 | 111 | 111 | 24 | --- | --- | --- | 0 |
| 8/3 | 105 | 106 | 106 | 24 | 114 | 115 | 117 | 24 | 107 | 107 | 108 | 24 | 110 | 111 | 111 | 24 | --- | --- | --- | 0 |
| 8/4 | 106 | 107 | 107 | 24 | 114 | 115 | 118 | 24 | 108 | 108 | 109 | 24 | 111 | 112 | 114 | 24 | --- | --- | --- | 0 |
| 8/5 | 106 | 107 | 107 | 24 | 115 | 116 | 116 | 24 | 109 | 110 | 110 | 24 | 113 | 114 | 114 | 24 | --- | --- | --- | 0 |
| 8/6 | 106 | 107 | 108 | 24 | 115 | 115 | 116 | 22 | 110 | 110 | 111 | 24 | 112 | 112 | 113 | 24 | --- | --- | --- | 0 |
| 8/7 | 107 | 108 | 109 | 24 | 116 | 116 | 118 | 24 | 111 | 111 | 112 | 24 | 113 | 114 | 114 | 24 | --- | --- | --- | 0 |
| 8/8 | 107 | 108 | 108 | 24 | 115 | 116 | 118 | 24 | 111 | 111 | 111 | 24 | 112 | 113 | 114 | 24 | --- | --- | --- | 0 |
| 8/9 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 8/10 | 107 | 107 | 107 | 9 | 115 | 115 | 116 | 9 | 111 | 111 | 111 | 8 | 111 | 111 | 112 | 8 | --- | --- | --- | 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**

| | McNary-Wash | | | | McNary Tlwr | | | | John Day | | | | John Day Tlwr | | | | The Dalles | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 24 h | 12 h | | # | 24 h | 12 h | | # | 24h | 12h | | # | 24h | 12h | | # | 24h | 12h | | # |
| Date | Avg | Avg | High | hr | Avg | Avg | High | hr | Avg | Avg | High | hr | Avg | Avg | High | hr | Avg | AVG | High | hr |
| 7/28 | 109 | 109 | 110 | 24 | 116 | 117 | 117 | 24 | 108 | 108 | 109 | 24 | 114 | 115 | 115 | 24 | 106 | 106 | 107 | 24 |
| 7/29 | 107 | 108 | 109 | 24 | 117 | 117 | 117 | 24 | 105 | 106 | 107 | 24 | 114 | 115 | 115 | 24 | 105 | 105 | 105 | 24 |
| 7/30 | 104 | 104 | 106 | 24 | 113 | 115 | 116 | 24 | 103 | 104 | 104 | 24 | 102 | 105 | 114 | 24 | 105 | 105 | 105 | 24 |
| 7/31 | 103 | 103 | 103 | 24 | 112 | 113 | 114 | 24 | 103 | 103 | 103 | 24 | 106 | 113 | 115 | 24 | 105 | 106 | 106 | 24 |
| 8/1 | 104 | 104 | 105 | 24 | 114 | 115 | 117 | 24 | 102 | 102 | 102 | 24 | 114 | 114 | 115 | 24 | 105 | 106 | 106 | 24 |
| 8/2 | 104 | 105 | 105 | 24 | 115 | 116 | 116 | 24 | 101 | 101 | 102 | 24 | 114 | 115 | 115 | 24 | 104 | 105 | 105 | 24 |
| 8/3 | 106 | 107 | 107 | 24 | 114 | 114 | 115 | 24 | 101 | 102 | 102 | 24 | 114 | 115 | 116 | 24 | 106 | 106 | 106 | 24 |
| 8/4 | 107 | 107 | 107 | 24 | 114 | 115 | 116 | 24 | 101 | 102 | 102 | 24 | 114 | 115 | 115 | 24 | 105 | 106 | 106 | 24 |
| 8/5 | 107 | 108 | 109 | 24 | 115 | 117 | 117 | 24 | 102 | 102 | 102 | 24 | 115 | 115 | 116 | 24 | 105 | 105 | 105 | 24 |
| 8/6 | 107 | 108 | 108 | 24 | 116 | 116 | 117 | 24 | 103 | 104 | 104 | 24 | 114 | 115 | 115 | 24 | 107 | 108 | 109 | 24 |
| 8/7 | 108 | 108 | 109 | 24 | 114 | 115 | 116 | 24 | 104 | 104 | 105 | 24 | 114 | 115 | 115 | 24 | 107 | 107 | 108 | 24 |
| 8/8 | 107 | 108 | 108 | 24 | 113 | 114 | 114 | 24 | 104 | 104 | 104 | 21 | 114 | 114 | 115 | 21 | 105 | 105 | 106 | 24 |
| 8/9 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 8/10 | 107 | 107 | 107 | 5 | 116 | 116 | 116 | 9 | 105 | 105 | 105 | 9 | 114 | 114 | 116 | 9 | 106 | 106 | 107 | 9 |

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

| | The Dalles Dnst | | | | Bonneville | | | | Warrendale | | | | Camas\Washougal | | | | Cascade Island | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 24 h | 12 h | | # | 24 h | 12 h | | # | 24h | 12h | | # | 24h | 12h | | # | 24h | 12h | | # |
| Date | Avg | Avg | High | hr | Avg | Avg | High | hr | Avg | Avg | High | hr | Avg | Avg | High | hr | Avg | Avg | High | hr |
| 7/28 | 112 | 113 | 113 | 24 | 104 | 104 | 105 | 24 | --- | --- | --- | 0 | 108 | 110 | 112 | 24 | 118 | 118 | 118 | 17 |
| 7/29 | 111 | 111 | 112 | 24 | 103 | 104 | 104 | 24 | --- | --- | --- | 0 | 110 | 111 | 113 | 24 | 118 | 118 | 118 | 17 |
| 7/30 | 111 | 112 | 112 | 24 | 103 | 104 | 104 | 24 | --- | --- | --- | 0 | 109 | 111 | 112 | 24 | 117 | 117 | 117 | 17 |
| 7/31 | 112 | 113 | 113 | 24 | 105 | 105 | 105 | 24 | --- | --- | --- | 0 | 111 | 113 | 115 | 24 | 117 | 117 | 118 | 17 |
| 8/1 | 112 | 112 | 112 | 24 | 105 | 105 | 105 | 24 | --- | --- | --- | 0 | 111 | 112 | 113 | 24 | 117 | 117 | 118 | 17 |
| 8/2 | 112 | 112 | 113 | 24 | 104 | 104 | 105 | 24 | --- | --- | --- | 0 | 112 | 113 | 114 | 24 | 117 | 117 | 118 | 17 |
| 8/3 | 113 | 114 | 114 | 24 | 104 | 105 | 105 | 20 | --- | --- | --- | 0 | 111 | 113 | 115 | 20 | 117 | 117 | 118 | 13 |
| 8/4 | 112 | 113 | 113 | 24 | 104 | 104 | 105 | 24 | --- | --- | --- | 0 | 111 | 112 | 114 | 24 | 117 | 117 | 118 | 17 |
| 8/5 | 113 | 113 | 113 | 24 | 105 | 105 | 106 | 24 | --- | --- | --- | 0 | 113 | 115 | 116 | 24 | 117 | 117 | 119 | 17 |
| 8/6 | 114 | 115 | 115 | 24 | 107 | 107 | 108 | 24 | --- | --- | --- | 0 | 114 | 116 | 117 | 24 | 117 | 117 | 118 | 17 |
| 8/7 | 114 | 114 | 115 | 24 | 108 | 108 | 109 | 24 | --- | --- | --- | 0 | 114 | 115 | 116 | 24 | 117 | 117 | 118 | 17 |
| 8/8 | 112 | 112 | 112 | 24 | 105 | 105 | 107 | 24 | --- | --- | --- | 0 | 111 | 113 | 114 | 24 | 117 | 117 | 118 | 17 |
| 8/9 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | 118 | 118 | 119 | 12 |
| 8/10 | 112 | 112 | 113 | 9 | 105 | 105 | 105 | 9 | --- | --- | --- | 0 | 112 | 112 | 114 | 9 | 117 | 117 | 117 | 2 |

# 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/currentsmpsubmitdata.asp

## COMBINED YEARLING CHINOOK

| Date | | WTB (Coll) | IMN (Coll) | GRN (Coll) | LEW (Coll) | LGR (INDEX) | LGS (INDEX) | LMN (INDEX) | RIS (INDEX) | MCN (INDEX) | JDA (INDEX) | BO2 (INDEX) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 07/28/2006 | * | --- | --- | --- | --- | 0 | 1 | 0 | 0 | 52 | 0 | 0 |
| 07/29/2006 | * | --- | --- | --- | --- | 0 | 0 | 9 | 0 | 0 | 0 | 0 |
| 07/30/2006 | * | --- | --- | --- | --- | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 07/31/2006 | | --- | --- | --- | --- | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08/01/2006 | * | --- | --- | --- | --- | 0 | 0 | 5 | 0 | 0 | 0 | 0 |
| 08/02/2006 | | --- | --- | --- | --- | 0 | 0 | 0 | 0 | 0 | 0 | 32 |
| 08/03/2006 | * | --- | --- | --- | --- | 0 | 0 | 4 | 0 | 0 | 0 | 0 |
| 08/04/2006 | | --- | --- | --- | --- | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08/05/2006 | * | --- | --- | --- | --- | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 08/06/2006 | | --- | --- | --- | --- | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08/07/2006 | * | --- | --- | --- | --- | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08/08/2006 | | --- | --- | --- | --- | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08/09/2006 | * | --- | --- | --- | --- | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08/10/2006 | | --- | --- | --- | --- | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08/11/2006 | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Total:** | | **0** | **0** | **0** | **0** | **0** | **3** | **18** | **1** | **52** | **0** | **32** |
| **# Days:** | | **0** | **0** | **0** | **0** | **14** | **14** | **14** | **14** | **14** | **14** | **14** |
| **Average:** | | **0** | **0** | **0** | **0** | **0** | **0** | **1** | **0** | **4** | **0** | **2** |
| **YTD** | | **30,897** | **25,910** | **13,056** | **18,995** | **3,692,699** | **4,182,426** | **1,439,249** | **37,267** | **1,560,846** | **2,250,569** | **2,256,364** |

## COMBINED SUBYEARLING CHINOOK

| Date | | WTB (Coll) | IMN (Coll) | GRN (Coll) | LEW (Coll) | LGR (INDEX) | LGS (INDEX) | LMN (INDEX) | RIS (INDEX) | MCN (INDEX) | JDA (INDEX) | BO2 (INDEX) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 07/28/2006 | * | --- | --- | --- | --- | 631 | 499 | 162 | 170 | 24,619 | 0 | 6,528 |
| 07/29/2006 | * | --- | --- | --- | --- | 347 | 374 | 123 | 309 | 9,317 | 13,930 | 4,503 |
| 07/30/2006 | * | --- | --- | --- | --- | 281 | 168 | 60 | 249 | 18,367 | 0 | 3,944 |
| 07/31/2006 | | --- | --- | --- | --- | 519 | 287 | 83 | 172 | 22,134 | 11,979 | 3,879 |
| 08/01/2006 | * | --- | --- | --- | --- | 288 | 173 | 71 | 320 | 28,723 | 0 | 2,675 |
| 08/02/2006 | | --- | --- | --- | --- | 216 | 365 | 20 | 148 | 20,929 | 6,034 | 3,669 |
| 08/03/2006 | * | --- | --- | --- | --- | 133 | 138 | 32 | 146 | 8,336 | 0 | 5,060 |
| 08/04/2006 | | --- | --- | --- | --- | 112 | 265 | 21 | 164 | 18,587 | 7,424 | 4,762 |
| 08/05/2006 | * | --- | --- | --- | --- | 135 | 502 | 62 | 79 | 28,093 | 0 | 1,731 |
| 08/06/2006 | | --- | --- | --- | --- | 317 | 450 | 13 | 120 | 17,753 | 13,170 | 2,165 |
| 08/07/2006 | * | --- | --- | --- | --- | 299 | 223 | 83 | 159 | 22,502 | 0 | 1,951 |
| 08/08/2006 | | --- | --- | --- | --- | 258 | 236 | 26 | 90 | 7,600 | 8,116 | 2,194 |
| 08/09/2006 | * | --- | --- | --- | --- | 202 | 53 | 5 | 50 | 6,900 | 0 | 2,218 |
| 08/10/2006 | | --- | --- | --- | --- | 206 | 28 | 42 | 55 | 4,892 | 9,589 | 2,469 |
| 08/11/2006 | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Total:** | | **0** | **0** | **0** | **0** | **3,944** | **3,761** | **803** | **2,231** | **238,752** | **70,242** | **47,748** |
| **# Days:** | | **0** | **0** | **0** | **0** | **14** | **14** | **14** | **14** | **14** | **14** | **14** |
| **Average:** | | **0** | **0** | **0** | **0** | **282** | **269** | **57** | **159** | **17,054** | **5,017** | **3,411** |
| **YTD** | | **3** | **30** | **15** | **291** | **745,870** | **1,127,644** | **357,278** | **31,325** | **4,021,150** | **2,805,599** | **3,832,120** |

# Two-Week Summary of Passage Indices

| | | | | COMBINED COHO | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | WTB | IMN | GRN | LEW | LGR | LGS | LMN | RIS | MCN | JDA | BO2 |
| Date | | (Coll) | (Coll) | (Coll) | (Coll) | (INDEX) | (INDEX) | (INDEX) | (INDEX) | (INDEX) | (INDEX) | (INDEX) |
| 07/28/2006 | * | --- | --- | --- | --- | 0 | 0 | 0 | 5 | 0 | 0 | 0 |
| 07/29/2006 | * | --- | --- | --- | --- | 0 | 1 | 0 | 1 | 0 | 144 | 0 |
| 07/30/2006 | * | --- | --- | --- | --- | 0 | 0 | 0 | 3 | 0 | 0 | 0 |
| 07/31/2006 | | --- | --- | --- | --- | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08/01/2006 | * | --- | --- | --- | --- | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 08/02/2006 | | --- | --- | --- | --- | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 08/03/2006 | * | --- | --- | --- | --- | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08/04/2006 | | --- | --- | --- | --- | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 08/05/2006 | * | --- | --- | --- | --- | 0 | 2 | 0 | 3 | 0 | 0 | 0 |
| 08/06/2006 | | --- | --- | --- | --- | 2 | 0 | 0 | 2 | 0 | 0 | 0 |
| 08/07/2006 | * | --- | --- | --- | --- | 0 | 0 | 0 | 3 | 0 | 0 | 0 |
| 08/08/2006 | | --- | --- | --- | --- | 4 | 2 | 0 | 3 | 0 | 0 | 0 |
| 08/09/2006 | * | --- | --- | --- | --- | 0 | 2 | 0 | 3 | 0 | 0 | 0 |
| 08/10/2006 | | --- | --- | --- | --- | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08/11/2006 | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Total:** | | **0** | **0** | **0** | **0** | **10** | **7** | **0** | **26** | **0** | **144** | **0** |
| **# Days:** | | **0** | **0** | **0** | **0** | **14** | **14** | **14** | **14** | **14** | **14** | **14** |
| **Average:** | | **0** | **0** | **0** | **0** | **1** | **1** | **0** | **2** | **0** | **10** | **0** |
| **YTD** | | **0** | **0** | **0** | **49** | **86,152** | **133,019** | **33,976** | **61,278** | **102,165** | **316,789** | **657,541** |

| | | | | COMBINED STEELHEAD | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | WTB | IMN | GRN | LEW | LGR | LGS | LMN | RIS | MCN | JDA | BO2 |
| Date | | (Coll) | (Coll) | (Coll) | (Coll) | (INDEX) | (INDEX) | (INDEX) | (INDEX) | (INDEX) | (INDEX) | (INDEX) |
| 07/28/2006 | * | --- | --- | --- | --- | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07/29/2006 | * | --- | --- | --- | --- | 0 | 3 | 0 | 1 | 26 | 0 | 0 |
| 07/30/2006 | * | --- | --- | --- | --- | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 07/31/2006 | | --- | --- | --- | --- | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| 08/01/2006 | * | --- | --- | --- | --- | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08/02/2006 | | --- | --- | --- | --- | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 08/03/2006 | * | --- | --- | --- | --- | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 08/04/2006 | | --- | --- | --- | --- | 0 | 0 | 4 | 1 | 0 | 0 | 0 |
| 08/05/2006 | * | --- | --- | --- | --- | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08/06/2006 | | --- | --- | --- | --- | 0 | 2 | 4 | 0 | 0 | 0 | 0 |
| 08/07/2006 | * | --- | --- | --- | --- | 0 | 0 | 0 | 3 | 0 | 0 | 0 |
| 08/08/2006 | | --- | --- | --- | --- | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 08/09/2006 | * | --- | --- | --- | --- | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08/10/2006 | | --- | --- | --- | --- | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 08/11/2006 | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Total:** | | **0** | **0** | **0** | **0** | **4** | **14** | **8** | **7** | **26** | **0** | **0** |
| **# Days:** | | **0** | **0** | **0** | **0** | **14** | **14** | **14** | **14** | **14** | **14** | **14** |
| **Average:** | | **0** | **0** | **0** | **0** | **0** | **1** | **1** | **1** | **2** | **0** | **0** |
| **YTD** | | **1,970** | **19,014** | **9,317** | **3,068** | **4,483,419** | **4,376,049** | **1,265,450** | **26,926** | **446,260** | **1,682,235** | **271,624** |

# Two-Week Summary of Passage Indices

| | | | | COMBINED SOCKEYE | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | WTB | IMN | GRN | LEW | LGR | LGS | LMN | RIS | MCN | JDA | BO2 |
| Date | | (Coll) | (Coll) | (Coll) | (Coll) | (INDEX) | (INDEX) | (INDEX) | (INDEX) | (INDEX) | (INDEX) | (INDEX) |
| 07/28/2006 | * | --- | --- | --- | --- | 0 | 0 | 0 | 9 | 79 | 0 | 0 |
| 07/29/2006 | * | --- | --- | --- | --- | 0 | 0 | 0 | 10 | 26 | 144 | 0 |
| 07/30/2006 | * | --- | --- | --- | --- | 0 | 0 | 0 | 4 | 123 | 0 | 47 |
| 07/31/2006 | | --- | --- | --- | --- | 0 | 0 | 0 | 1 | 0 | 0 | 27 |
| 08/01/2006 | * | --- | --- | --- | --- | 0 | 2 | 0 | 6 | 35 | 0 | 56 |
| 08/02/2006 | | --- | --- | --- | --- | 0 | 0 | 0 | 3 | 52 | 0 | 0 |
| 08/03/2006 | * | --- | --- | --- | --- | 0 | 0 | 0 | 6 | 103 | 0 | 0 |
| 08/04/2006 | | --- | --- | --- | --- | 0 | 0 | 0 | 4 | 34 | 57 | 0 |
| 08/05/2006 | * | --- | --- | --- | --- | 0 | 0 | 0 | 3 | 0 | 0 | 0 |
| 08/06/2006 | | --- | --- | --- | --- | 0 | 0 | 0 | 6 | 26 | 29 | 0 |
| 08/07/2006 | * | --- | --- | --- | --- | 0 | 0 | 0 | 3 | 128 | 0 | 0 |
| 08/08/2006 | | --- | --- | --- | --- | 0 | 0 | 0 | 3 | 17 | 0 | 0 |
| 08/09/2006 | * | --- | --- | --- | --- | 0 | 0 | 0 | 3 | 34 | 0 | 0 |
| 08/10/2006 | | --- | --- | --- | --- | 0 | 2 | 0 | 3 | 13 | 0 | 0 |
| 08/11/2006 | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Total:** | | **0** | **0** | **0** | **0** | **0** | **4** | **0** | **64** | **670** | **230** | **130** |
| **# Days:** | | **0** | **0** | **0** | **0** | **14** | **14** | **14** | **14** | **14** | **14** | **14** |
| **Average:** | | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **5** | **48** | **16** | **9** |
| **YTD** | | **13** | **0** | **0** | **679** | **51,861** | **92,637** | **40,235** | **34,562** | **496,866** | **529,246** | **407,753** |

* 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: 8/11/06 9:48 AM

**07/28/06 TO 08/11/06**

| | | Species | | | | | |
|---|---|---|---|---|---|---|---|
| Site | Data | **CH0** | **CH1** | **CO** | **SO** | **ST** | **Grand Total** |
| **LGR** | Sum of NumberCollected | 1,735 | | 5 | | | 1,740 |
| | Sum of NumberBarged | 1,946 | | 5 | | | 1,951 |
| | Sum of NumberBypassed | 0 | | 0 | | | 0 |
| | Sum of Numbertrucked | 0 | | 0 | | | 0 |
| | Sum of SampleMorts | 17 | | 0 | | | 17 |
| | Sum of FacilityMorts | 7 | | 0 | | | 7 |
| | Sum of ResearchMorts | 0 | | 0 | | | 0 |
| | Sum of TotalProjectMorts | 24 | | 0 | | | 24 |
| **LGS** | Sum of NumberCollected | 2,482 | 2 | 4 | 2 | 9 | 2,499 |
| | Sum of NumberBarged | 2,741 | 1 | 4 | 1 | 9 | 2,756 |
| | Sum of NumberBypassed | 1 | 0 | 0 | 0 | 0 | 1 |
| | Sum of Numbertrucked | 0 | 0 | 0 | 0 | 0 | 0 |
| | Sum of SampleMorts | 21 | 1 | 0 | 0 | 1 | 23 |
| | Sum of FacilityMorts | 0 | 0 | 0 | 0 | 0 | 0 |
| | Sum of ResearchMorts | 0 | 0 | 0 | 0 | 0 | 0 |
| | Sum of TotalProjectMorts | 21 | 1 | 0 | 0 | 1 | 23 |
| **LMN** | Sum of NumberCollected | 377 | 8 | | | 4 | 389 |
| | Sum of NumberBarged | 395 | 6 | | | 4 | 405 |
| | Sum of NumberBypassed | 60 | 2 | | | 0 | 62 |
| | Sum of Numbertrucked | 0 | 0 | | | 0 | 0 |
| | Sum of SampleMorts | 11 | 0 | | | 0 | 11 |
| | Sum of FacilityMorts | 15 | 0 | | | 0 | 15 |
| | Sum of ResearchMorts | 0 | 0 | | | 0 | 0 |
| | Sum of TotalProjectMorts | 26 | 0 | | | 0 | 26 |
| **MCN** | Sum of NumberCollected | 114,214 | 20 | | 283 | 10 | 114,527 |
| | Sum of NumberBarged | 88,896 | 20 | | 242 | 10 | 89,168 |
| | Sum of NumberBypassed | 24,313 | 0 | | 40 | 0 | 24,353 |
| | Sum of Numbertrucked | 0 | 0 | | 0 | 0 | 0 |
| | Sum of SampleMorts | 92 | 0 | | 1 | 0 | 93 |
| | Sum of FacilityMorts | 883 | 0 | | 0 | 0 | 883 |
| | Sum of ResearchMorts | 0 | 0 | | 0 | 0 | 0 |
| | Sum of TotalProjectMorts | 975 | 0 | | 1 | 0 | 976 |
| Total Sum of NumberCollected | | 118,808 | 30 | 9 | 285 | 23 | 119,155 |
| Total Sum of NumberBarged | | 93,978 | 27 | 9 | 243 | 23 | 94,280 |
| Total Sum of NumberBypassed | | 24,374 | 2 | 0 | 40 | 0 | 24,416 |
| Total Sum of Numbertrucked | | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Sum of SampleMorts | | 141 | 1 | 0 | 1 | 1 | 144 |
| Total Sum of FacilityMorts | | 905 | 0 | 0 | 0 | 0 | 905 |
| Total Sum of ResearchMorts | | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Sum of TotalProjectMorts | | 1,046 | 1 | 0 | 1 | 1 | 1,049 |

# YTD Transportation Summary

Source: Fish Passage Center Updated: 8/11/06 9:48 AM

**TO: 08/11/06**

| | | Species | | | | | |
|---|---|---|---|---|---|---|---|
| Site | Data | **CH0** | **CH1** | **CO** | **SO** | **ST** | **Grand Total** |
| **LGR** | Sum of NumberCollected | 478,068 | 2,407,709 | 51,165 | 32,615 | 2,820,593 | 5,790,150 |
| | Sum of NumberBarged | 459,012 | 1,964,112 | 46,807 | 25,789 | 2,467,171 | 4,962,891 |
| | Sum of NumberBypassed | 17,386 | 437,073 | 4,214 | 6,237 | 352,045 | 816,955 |
| | Sum of NumberTrucked | 0 | 0 | 0 | 0 | 0 | 0 |
| | Sum of SampleMorts | 271 | 203 | 2 | 30 | 100 | 606 |
| | Sum of FacilityMorts | 1,276 | 6,010 | 140 | 558 | 1,220 | 9,204 |
| | Sum of ResearchMorts | 41 | 311 | 2 | 1 | 57 | 412 |
| | Sum of TotalProjectMorts | 1,588 | 6,524 | 144 | 589 | 1,377 | 10,222 |
| **LGS** | Sum of NumberCollected | 766,842 | 3,131,211 | 88,080 | 63,225 | 3,228,555 | 7,277,913 |
| | Sum of NumberBarged | 756,055 | 2,746,888 | 86,462 | 53,002 | 2,634,376 | 6,276,783 |
| | Sum of NumberBypassed | 4,265 | 376,348 | 1,524 | 8,895 | 591,417 | 982,449 |
| | Sum of NumberTrucked | 0 | 0 | 0 | 0 | 0 | 0 |
| | Sum of SampleMorts | 175 | 137 | 0 | 23 | 21 | 356 |
| | Sum of FacilityMorts | 2,989 | 5,761 | 94 | 1,304 | 739 | 10,887 |
| | Sum of ResearchMorts | 23 | 22 | 0 | 0 | 1 | 46 |
| | Sum of TotalProjectMorts | 3,187 | 5,920 | 94 | 1,327 | 761 | 11,289 |
| **LMN** | Sum of NumberCollected | 248,966 | 1,096,139 | 23,183 | 27,781 | 935,552 | 2,331,621 |
| | Sum of NumberBarged | 242,081 | 1,060,701 | 23,024 | 27,011 | 883,887 | 2,236,704 |
| | Sum of NumberBypassed | 6,320 | 34,453 | 159 | 576 | 51,011 | 92,519 |
| | Sum of NumberTrucked | 0 | 0 | 0 | 0 | 0 | 0 |
| | Sum of SampleMorts | 154 | 47 | 0 | 9 | 34 | 244 |
| | Sum of FacilityMorts | 394 | 938 | 0 | 185 | 620 | 2,137 |
| | Sum of ResearchMorts | 1 | 0 | 0 | 0 | 0 | 1 |
| | Sum of TotalProjectMorts | 549 | 985 | 0 | 194 | 654 | 2,382 |
| **MCN** | Sum of NumberCollected | 2,077,695 | 830,092 | 47,855 | 253,005 | 232,043 | 3,440,690 |
| | Sum of NumberBarged | 979,918 | 316 | 100 | 909 | 69 | 981,312 |
| | Sum of NumberBypassed | 1,089,978 | 828,856 | 47,736 | 251,700 | 231,814 | 2,450,084 |
| | Sum of NumberTrucked | 0 | 0 | 0 | 0 | 0 | 0 |
| | Sum of SampleMorts | 404 | 117 | 1 | 29 | 13 | 564 |
| | Sum of FacilityMorts | 7,170 | 761 | 15 | 350 | 141 | 8,437 |
| | Sum of ResearchMorts | 196 | 42 | 3 | 17 | 6 | 264 |
| | Sum of TotalProjectMorts | 7,770 | 920 | 19 | 396 | 160 | 9,265 |
| Total Sum of NumberCollected | | 3,571,571 | 7,465,151 | 210,283 | 376,626 | 7,216,743 | 18,840,374 |
| Total Sum of NumberBarged | | 2,437,066 | 5,772,017 | 156,393 | 106,711 | 5,985,503 | 14,457,690 |
| Total Sum of NumberBypassed | | 1,117,949 | 1,676,730 | 53,633 | 267,408 | 1,226,287 | 4,342,007 |
| Total Sum of NumberTrucked | | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Sum of SampleMorts | | 1,004 | 504 | 3 | 91 | 168 | 1,770 |
| Total Sum of FacilityMorts | | 11,829 | 13,470 | 249 | 2,397 | 2,720 | 30,665 |
| Total Sum of ResearchMorts | | 261 | 375 | 5 | 18 | 64 | 723 |
| Total Sum of TotalProjectMorts | | 13,094 | 14,349 | 257 | 2,506 | 2,952 | 33,158 |

## Cumulative Adult Passage at Mainstem Dams Through: 08/10

| | | Spring Chinook | | | | | | Summer Chinook | | | | | | Fall Chinook | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 2006 | | 2005 | | 10-Yr Avg. | | 2006 | | 2005 | | 10-Yr Avg. | | 2006 | | 2005 | | 10-Yr Avg. | |
| DAM | EndDate | Adult | Jack | Adult | Jack | Adult | Jack | Adult | Jack | Adult | Jack | Adult | Jack | Adult | Jack | Adult | Jack | Adult | Jack |
| **BON** | 08/10 | 96,456 | 2,908 | 74,038 | 4,288 | 151,682 | 8,418 | 97,519 | 4,355 | 79,208 | 4,495 | 61,165 | 7,724 | 4,323 | 559 | 2,758 | 345 | 4,875 | 738 |
| **TDA** | 08/10 | 61,827 | 2,176 | 60,964 | 3,210 | 104,618 | 6,110 | 81,219 | 3,620 | 69,650 | 3,486 | 53,046 | 5,654 | 2,518 | 296 | 1,427 | 95 | 1,996 | 407 |
| **JDA** | 08/10 | 50,313 | 2,093 | 56,027 | 2,715 | 87,807 | 4,857 | 73,837 | 4,150 | 64,034 | 5,405 | 49,520 | 5,613 | 1,410 | 237 | 790 | 105 | 950 | 282 |
| **MCN** | 08/09 | 45,355 | 2,475 | 51,855 | 3,201 | 80,814 | 5,125 | 62,422 | 3,387 | 63,779 | 3,079 | 49,097 | 5,314 | 163 | 19 | 143 | 15 | 190 | 41 |
| **IHR** | 08/09 | 25,465 | 843 | 28,039 | 1,267 | 54,334 | 3,256 | 8,630 | 551 | 8,790 | 984 | 11,022 | 1,887 | 0 | 0 | 0 | 0 | 0 | 0 |
| **LMN** | 08/09 | 23,596 | 551 | 25,933 | 1,002 | 51,936 | 3,032 | 9,911 | 501 | 8,298 | 794 | 10,470 | 1,540 | 0 | 0 | 0 | 0 | 0 | 0 |
| **LGS** | 08/09 | 20,839 | 745 | 23,995 | 923 | 49,856 | 3,088 | 8,136 | 578 | 6,926 | 968 | 9,096 | 1,812 | 0 | 0 | 0 | 0 | 0 | 0 |
| **LGR** | 08/09 | 22,963 | 984 | 26,028 | 1,258 | 49,902 | 3,362 | 8,071 | 705 | 6,670 | 1,065 | 9,179 | 1,983 | 0 | 0 | 0 | 0 | 0 | 0 |
| **PRD** | 08/08 | 8,535 | 81 | 14,148 | 515 | 16,757 | 523 | 55,868 | 474 | 60,894 | 1,898 | 43,070 | 1,891 | 0 | 0 | 0 | 0 | 0 | 0 |
| **RIS** | 08/08 | 9,245 | 473 | 11,908 | 504 | 13,259 | 737 | 56,467 | 1,759 | 51,851 | 2,296 | 38,275 | 4,129 | 0 | 0 | 0 | 0 | 0 | 0 |
| **RRH** | 08/08 | 5,376 | 274 | 4,568 | 417 | 4,860 | 283 | 37,752 | 1,473 | 39,474 | 2,046 | 27,608 | 2,610 | 0 | 0 | 0 | 0 | 0 | 0 |
| **WEL** | 08/08 | 4,043 | 214 | 4,897 | 99 | 3,488 | 193 | 20,360 | 938 | 25,789 | 504 | 18,892 | 931 | 0 | 0 | 0 | 0 | 0 | 0 |
| **WFA** | 08/09 | 34,649 | 167 | 35,435 | 1,179 | 3,480 | 87 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| | Coho | | | | | | Sockeye | | | Steelhead | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2006 | | 2005 | | 10-Yr Avg. | | | | 10-Yr | | | 10-Yr | Wild |
| DAM | Adult | Jack | Adult | Jack | Adult | Jack | 2006 | 2005 | Avg. | 2006 | 2005 | Avg. | 2006 |
| **BON** | 79 | 10 | 1 | 0 | 34 | 1 | 37,030 | 72,929 | 60,116 | 107,945 | 140,311 | 147586 | 38,124 |
| **TDA** | 7 | 2 | 1 | 0 | 0 | 0 | 29,991 | 65,241 | 50,280 | 26,685 | 45,972 | 59051 | 11,099 |
| **JDA** | 5 | 7 | 0 | 0 | 2 | 0 | 35,347 | 69,737 | 54,228 | 25,225 | 35,156 | 41822 | 8,693 |
| **MCN** | 0 | 0 | 0 | 0 | 0 | 0 | 29,173 | 63,492 | 46,903 | 14,727 | 27,190 | 29505 | 4,682 |
| **IHR** | 1 | 1 | 0 | 0 | 0 | 0 | 51 | 18 | 27 | 6,938 | 9,644 | 14030 | 1,688 |
| **LMN** | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 18 | 29 | 7,901 | 8,740 | 11743 | 1,869 |
| **LGS** | 0 | 0 | 0 | 0 | 0 | 0 | 21 | 13 | 33 | 4,241 | 5,043 | 7575 | 1,299 |
| **LGR** | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 18 | 34 | 8,899 | 7,864 | 10329 | 2,624 |
| **PRD** | 0 | 0 | 6 | 2 | 5 | 0 | 26,700 | 74,470 | 58,395 | 1,685 | 2,965 | 3286 | 0 |
| **RIS** | 0 | 0 | 2 | 0 | 1 | 0 | 34,720 | 70,925 | 53,128 | 1,104 | 2,527 | 2317 | 652 |
| **RRH** | 0 | 0 | 0 | 0 | 1 | 0 | 25,188 | 55,018 | 37,074 | 811 | 1,738 | 1542 | 429 |
| **WEL** | 0 | 0 | 0 | 0 | 0 | 0 | 21,393 | 52,330 | 35,794 | 288 | 690 | 747 | 150 |
| **WFA** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 28,318 | 19,109 | 1805 | 0 |

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: 08/11/06

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

| Chinook Adult | Chinook Jack | Steelhead | Wild Steelhead |
|---|---|---|---|
| 1 | 0 | 2,516 | 238 |

Run Year counts (June 1, 2005 to May 31, 2006) for Lower Granite:

| Steelhead |
|---|
| 1,225 |