



Fish Passage Center

Weekly Report #05 - 16

June 24, 2005

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

Highlights:

- Precipitation continues to be above average over June at most Columbia Basin locations.
- Water Supply Forecasts have varied between the June Final and June Mid-Month Forecasts, Libby and Hungry Horse have increased 6-7% with respect to average (between June Final and June Mid-month), while Lower Granite and Dworshak have decreased 6%.
- The Spring Flow Objective period in the Lower Snake River began on April 3rd, 2005 and ended on June 20th, 2005. In 2005, flows averaged 66.3 Kcfs at Lower Granite Dam between April 3rd and June 20th; the flow objective was 85 Kcfs.
- Flows at McNary Dam have averaged 195.0 Kcfs since April 10th and flows at Priest Rapids have averaged 119.7 Kcfs; over the last week flows have averaged 190.4 Kcfs at McNary and 138.4 at Priest Rapids
- All major Columbia and Snake River basin storage reservoirs are less than four feet from full; most are within one foot from full.
- At the June 22nd, 2005 TMT meeting, the BOR announced that the full 427 Kaf of flow augmentation from upper snake river storage projects will be available over the summer of 2005.
- Spill at The Dalles Dam averaged only 35% of average daily flow as compared to the 40% specified in the Biological Opinion due to facility restrictions.
- Judge Redden's June 10, 2005 opinion in NWF v. NMFS granted the spill portion of the National Wildlife Federation's requested injunctive relief. Spill was initiated on June 20, 2005.

Summary of Events:

Water Supply: Precipitation continues to be above average over June at most Columbia Basin locations. Of the sites in Table 1, eleven recorded precipitation that was greater than average over the first twenty days of June. Over the entire water year, precipitation remains slightly below average at most locations.

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

| Location | Water Year 2005 June 1-20 | | Water Year 2005 October 1, 2004 to June 20, 2005 | |
|--------------------------------|------------------------------|--------------|--|--------------|
| | Observed (inches) | % Average | Observed (inches) | % Average |
| Columbia Above Coulee | 2.78 | 175 | 18.34 | 93 |
| Snake River Above Ice Harbor | 1.21 | 124 | 14.66 | 100 |
| Columbia Above The Dalles | 1.63 | 137 | 17.03 | 89 |
| Kootenai | 3.21 | 196 | 18.28 | 90 |
| Clark Fork | 1.91 | 148 | 11.74 | 87 |
| Flathead | 3.97 | 226 | 18.20 | 101 |
| Pend Oreille/Spokane | 1.84 | 126 | 23.22 | 88 |
| Central Washington | 0.32 | 75 | 6.08 | 78 |
| Snake River Plain | 0.77 | 121 | 11.54 | 124 |
| Salmon/Boise/Payette | 1.00 | 102 | 14.19 | 83 |
| Clearwater | 1.98 | 119 | 22.70 | 87 |
| SW Washington Cascades/Cowlitz | 1.96 | 99 | 47.28 | 73 |
| Willamette Valley | 2.36 | 158 | 38.58 | 70 |

Water Supply Forecasts have varied between the June Final and June Mid-Month Forecasts, some have increased and others have decreased. For example, forecasts at Libby and Hungry Horse have increased 6-7% with respect to average (between June Final and June Mid-month), while Lower Granite and Dworshak have decreased 6%. Table 2 displays the June Final and June Mid-Month runoff volume forecasts for multiple reservoirs along with runoff volumes that actually occurred in 2001 for comparison. All forecasts are currently above the actual runoff volumes recorded in 2001.

Table 2. June Final and the June Mid-Month Runoff Volume Forecasts for various reservoirs within the Columbia and Snake River Basins along with 2001 actual runoff volumes over the same periods.

| Location | June Final | | June Mid-Month | | Actual 2001 |
|---|-----------------------|------------------------------|-----------------------|------------------------------|----------------------------|
| | % Average (1971-2000) | Probable Runoff Volume (Kaf) | % Average (1971-2000) | Probable Runoff Volume (Kaf) | Actual Runoff Volume (Kaf) |
| The Dalles (Jan-July) | 74 | 79800 | 74 | 79100 | 58200 |
| Grand Coulee (Jan-July) | 84 | 53000 | 86 | 54100 | 37400 |
| Libby Res. Inflow, MT (Jan-July) | 85 | 5350 | 92 | 5770 | 3341 |
| Hungry Horse Res. Inflow, MT (Jan-July) | 75 | 1660 | 81 | 1810 | 1300 |
| Lower Granite Res. Inflow (Apr- July) | 68 | 14600 | 62 | 13300 | 10300 |
| Brownlee Res. Inflow (Apr-July) | 54 | 3410 | 51 | 3190 | 1970* |
| Dworshak Res. Inflow (Apr-July) | 68 | 1800 | 62 | 1630 | 1470 |

The Spring Flow Objective period in the Lower Snake River began on April 3rd, 2005 and ended on June 20th, 2005. Based on the April Final Forecast at Lower Granite (Apr-July), the spring flow objective was 85 Kcfs at Lower Granite. In 2005, flows averaged 66.3 Kcfs at Lower Granite Dam between April 3rd and June 20th. The summer flow objective period began on June 21st, 2005 with a flow objective of 50 Kcfs. River flows at Lower Granite Dam have averaged 51.3 Kcfs between June 21-23.

The Spring Flow Objective Periods at McNary Dam and Priest Rapids Dam began on April 10th. The flow objectives at McNary and Priest Rapids are 220 Kcfs and 135 Kcfs, respectively. Flows at McNary Dam have averaged 195.0 Kcfs since April 10th and flows at Priest Rapids have averaged 119.7 Kcfs; over the last week flows have averaged 190.4 Kcfs at McNary and 138.4 at Priest Rapids.

Grand Coulee Reservoir is currently at an elevation of 1288.2 feet (June 23rd, 2005 midnight) and has refilled 3.7 feet in the last week.

The Libby Reservoir is currently at elevation 2455.1 feet and refilled 3.7 feet over the last week. Outflows at Libby are currently 24.4 Kcfs.

The Hungry Horse Reservoir is currently at an elevation of 3559.4 feet and refilled approximately 0.4 feet last week. Outflows at Hungry Horse are currently 4.8 Kcfs.

The Dworshak Reservoir is currently at an elevation of 1599.1 feet refilled 0.1 feet over the last week. Outflows at Dworshak are currently 3.9 Kcfs.

The Brownlee Reservoir was at an elevation of 2076.0 feet on June 23rd, 2005 with outflows ranging between 9.0 and 15.9 Kcfs over the last week.

At the June 22nd, 2005 TMT meeting, the BOR announced that the full 427 Kaf of flow augmentation from upper Snake River storage projects will be available over the summer of 2005.

Spill: Judge Redden's June 10, 2005 opinion in NWF v. NMFS granted the spill portion of the National Wildlife Federation's requested injunctive relief. Spill in excess of the flow necessary to operate one unit at each Snake River Project at the low end of the 1% efficiency range and 50 Kcfs at McNary Dam is to occur on a 24-hour basis. Spill started at Lower Granite, Little Goose, Lower Monumental, and Ice Harbor dams on June 20. Spill will begin at McNary Dam on July 1. Spill is being provided in such a way as to meet the court order and at the same time accommodate planned research projects. Spill will also be limited when necessary so as not exceed the state water quality waiver standards.

Spill at Lower Granite Dam and Ice Harbor Dams is being provided to the gas cap, except for days when the RSW is being tested. Spill at Little Goose Dam is being provided to the gas cap. At Lower Monumental Dam spill was originally limited because of concerns regarding total dissolved gas production at this project. Consequently, spill began at 11.5 Kcfs instantaneous flow and has been gradually increased to 24.9 Kcfs. Spill averaged 54% of daily average flows at Lower Granite, 70% of daily average flows at Little Goose, 37.5% of daily average flows at Lower Monumental and 75.3% of daily average flows at Ice Harbor over the past 4 days.

Biological Opinion spring spill in the lower Columbia River continues through June 30. Spill at McNary Dam averaged 34% of daily average flow and spill at John Day Dam averaged 28% of daily average flow. Spill at both McNary and John Day dams are called for during nighttime hours. Spill at The Dalles Dam is being provided via fixed spill gate openings (dogged off) and variable gate operations of spillbays 1 and 2. This past week volumes have continued to average less (35%) than the 40% specified in the Biological Opinion. Spill at Bonneville Dam averaged 48 % of average daily flow over the past week.

No fish with gas bubble trauma were observed in the monitoring program over the past week.

Smolt Monitoring: Passage indices for subyearling chinook took a big jump upward at McNary Dam and increased as well at other Lower Columbia sites, while at Rock Island and Lower Snake dams indices were down substantially compared to last week. Numbers of spring migrants decreased again this week at most SMP sites.

At Lower Granite Dam in the Lower Snake River the subyearling Chinook average passage index dropped to 21,000 this week compared to 33,000 the previous week. Passage indices for yearling chinook were down again this week, averaging 900 per day while steelhead indices increased slightly to 2,200 this past week. Sockeye indices averaged 100 this past week, while coho indices averaged 160 this week.

Subyearling Chinook indices have declined rapidly at all Lower Snake sites since spill began on June 20. It is likely that numbers passing are declining but not at the rate indicated by the most recent indices. Spill passage has increased with the spill operations and therefore collection at the projects has likely decreased. Collection efficiencies will be estimated once sufficient PIT-tagged fish have passed through the Snake River under the new spill operations.

In the Mid-Columbia, at Rock Island Dam, subyearling indices were down this week, with the weekly average index 100 compared to 230 last week. Spring migrants were captured in relatively low numbers at the site.

At McNary Dam indices for subyearlings increased substantially this week with the index averaging 400,000 per day compared to 148,000 per day last week. McNary saw a big one day index on June 18 of 518,000. As at most other sites, the spring migrant indices declined again this week across the board at McNary Dam.

John Day Dam and Bonneville Dam also saw decreasing indices for all spring migrants while subyearling indices began increasing, reflecting the increases seen last week at McNary. At John Day Dam the index averaged 63,000 this week compared to 9,000 last week while at Bonneville Dam the subyearling index averaged 41,000 this past week up from 13,000 last week.

Hatchery Releases - Releases of juvenile salmonids from Columbia River Basin hatcheries above Bonneville Dam are estimated near 83.9 million for the 2005 migration season. The Zone Release Report below summarizes "planned" hatchery releases from State, Federal or Tribal hatcheries or acclimation ponds for this year's migration. These totals will be updated and finalized through the year.

Hatchery Zone Release Report

| | Friday 24-Jun-2005 | | | |
|------------------|--------------------|--------------|----------------|---------------|
| | Snake River | Mid-Columbia | Lower Columbia | Total Release |
| Fall Chinook | 4,907,703 | 12,549,219 | 21,688,276 | 39,145,198 |
| Spring Chinook | 9,440,350 | 5,112,676 | 5,173,723 | 19,726,749 |
| Summer Chinook | 2,348,012 | 3,369,490 | | 5,717,502 |
| Coho | 816,300 | 1,868,096 | 5,149,846 | 7,834,242 |
| Sockeye | 209,046 | 592,459 | | 801,505 |
| Summer Steelhead | 8,908,003 | 1,167,754 | 522,206 | 10,597,963 |
| Winter Steelhead | | | 118,300 | 118,300 |
| Total | 26,629,414 | 24,659,694 | 32,652,351 | 83,941,459 |

Hatcheries in the Columbia/Snake River basin released about 16.0 million fish during the past two weeks with approximately 1.3 million fish to be released during the upcoming two weeks. See the Hatchery Release Summary Tables for further details.

Snake River - Yearling Chinook, coho, sockeye and steelhead salmon releases from hatcheries in the Snake River basin are completed for the 2005 season. All subyearling fall Chinook have been released for the season.

Mid-Columbia - All yearling spring and summer Chinook, coho, and steelhead juvenile migrants were released from hatcheries during this spring for 2005. The second group of subyearling Chinook from Wells Hatchery was released on June 15th with the remaining subyearling summer Chinook scheduled for June 28th from Turtle Rock facility. All subyearling fall Chinook in the Yakima River basin, from Priest Rapids Hatchery and Ringold Hatchery have been released during the past two weeks or earlier in the case of the Yakama releases mainly from Prosser facility.

Lower Columbia - Yearling Bright fall and Tule fall Chinook, yearling and subyearling spring Chinook, coho salmon, and steelhead hatchery releases are completed for the season.

Subyearling fall Chinook from the Umatilla River were released in mid-May with subyearling fall Chinook released in the Klickitat River on June 13-15 and remaining 2.1 million on June 16-20. Subyearling fall Chinook from Little White Salmon Hatchery will be split between on-site release of 1.5 million on June 23 and the remaining 550k released at Williard Hatchery, upstream in the Little White Salmon River from June 24 through the next week.

Juvenile Sockeye were released mainly last summer and fall; the majority of these fish reside in the lake and then migrate from the lake and to the ocean the next spring (2005). In the Snake River basin, about 80,000 juvenile sockeye were released in the upper Salmon River in early May. A release of juvenile sockeye from the Canadian fisheries into Lake Skaha (located above Lake Osoyoos) was completed last summer with the 2006 migrant Sockeye released four weeks ago in Lake Skaha.

Adult Fish Passage -At Bonneville Dam, traditional counting of adult summer Chinook began on June 1st. The weekly count averaged 1,814 fish/day through the week ending June 23rd with the season total now 37,888. This total is about 79.4% and 147.2% of the respective 2004 and 10-year average. The peak daily count was 2,464 on June 22nd, with the low count of 1,365 on June 18th. The adult summer Chinook count at The Dalles Dam was 29,820, about 78.8% of the Bonneville passage total to date. These fish appear to be moving upstream at a consistent rate through the Columbia River. Above McNary Dam, adult Chinook counts into the Snake River ranged between 300-600 for the week (similar to the previous week) at Ice Harbor Dam while in the Mid-Columbia River, daily counts ranged between 900 and 1,700 at Priest Rapids Dam. The vast majority of summer Chinook counted at Bonneville Dam are primarily destined for the mid-Columbia River and are passing those projects in fairly high numbers this week.

At Bonneville Dam, steelhead counts rose throughout the week with the average daily count of 370 per day, about 100 greater per day than the

previous week. It appears that about 50% of these steelhead are continuing up past The Dalles Dam now, and the percentage will continue to increase through time for the steelhead heading to tributaries above The Dalles Dam. To date, the steelhead run is lagging well behind the 2004 return to Bonneville and was about 77% of the 10-year average.

Adult sockeye salmon passage at Bonneville Dam averaged 2,183 per day through the week with the count at Bonneville through June 23 at 24,400, about 34% and 96% of the respective 2004 and 10-year average count through June 23rd.

With the implementation of the increased spill levels in the Snake River on Monday, June 20, numbers of adult Chinook passing Ice Harbor and Lower Monumental Dams stayed very consistent with preceding days of operation; however, at Little Goose Dam, adult Chinook appear to have a partial block in passage with the new daytime spill/flow regime. For example, at Lower Monumental Dam, adult Chinook counts averaged 338 per day for the last 7-day period. The initial 3-day count at Little Goose Dam prior to implementing the new operation averaged 391 Chinook per day. Since that time, Chinook passage averaged only 80 per day during the last 4-day period after the new spill patterns were implemented. Changes to the spill pattern were being examined in the models at WES hydraulic laboratories in Mississippi and potentially might improve the passage. Hopefully, passage of adult Chinook will be increased at Little Goose for these adult migrants at the Project.

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 |
| 06/10/05 | 127.4 | 0.1 | 127.5 | 0.0 | 134.1 | 8.8 | 131.6 | 11.5 | 134.9 | 23.9 | 136.8 | 8.8 | 140.2 | 86.4 |
| 06/11/05 | 85.7 | 0.1 | 90.1 | 0.0 | 97.9 | 8.2 | 97.5 | 8.5 | 102.9 | 18.7 | 114.2 | 8.9 | 118.3 | 73.3 |
| 06/12/05 | 71.2 | 0.1 | 68.4 | 0.0 | 87.5 | 7.0 | 90.0 | 7.3 | 92.6 | 15.2 | 116.3 | 8.5 | 115.7 | 71.4 |
| 06/13/05 | 134.4 | 0.1 | 138.4 | 0.0 | 131.6 | 8.5 | 121.2 | 11.7 | 120.6 | 26.7 | 125.2 | 7.8 | 130.2 | 80.3 |
| 06/14/05 | 134.6 | 0.1 | 130.0 | 0.0 | 140.2 | 9.0 | 136.5 | 12.0 | 139.7 | 27.3 | 112.1 | 8.4 | 108.6 | 67.0 |
| 06/15/05 | 133.5 | 0.2 | 131.9 | 0.0 | 139.0 | 8.8 | 134.4 | 11.7 | 137.5 | 26.4 | 134.3 | 9.2 | 133.8 | 82.8 |
| 06/16/05 | 142.7 | 0.2 | 140.9 | 0.0 | 148.1 | 9.2 | 141.0 | 11.2 | 144.0 | 26.0 | 146.6 | 8.6 | 148.9 | 91.7 |
| 06/17/05 | 117.0 | 0.2 | 125.1 | 0.0 | 133.1 | 9.7 | 131.4 | 12.8 | 134.6 | 27.9 | 143.4 | 9.0 | 146.6 | 90.2 |
| 06/18/05 | 90.5 | 0.2 | 91.8 | 0.0 | 99.7 | 8.0 | 100.3 | 10.7 | 102.6 | 23.5 | 103.2 | 8.7 | 110.3 | 68.1 |
| 06/19/05 | 79.1 | 0.2 | 76.8 | 0.0 | 80.1 | 6.7 | 78.4 | 8.3 | 81.7 | 18.6 | 76.4 | 9.5 | 68.1 | 42.2 |
| 06/20/05 | 148.5 | 0.2 | 148.4 | 0.0 | 150.7 | 9.6 | 143.2 | 13.0 | 142.6 | 29.0 | 142.2 | 9.2 | 145.8 | 88.7 |
| 06/21/05 | 155.9 | 0.2 | 152.4 | 0.0 | 161.0 | 10.1 | 159.0 | 12.1 | 162.4 | 31.0 | 162.8 | 9.2 | 163.8 | 98.4 |
| 06/22/05 | 140.1 | 0.2 | 145.0 | 0.0 | 156.6 | 10.0 | 157.4 | 13.4 | 159.5 | 31.2 | 163.4 | 9.3 | 170.4 | 99.5 |
| 06/23/05 | 148.0 | 0.2 | 156.2 | 0.0 | 159.3 | 10.0 | 151.0 | 14.9 | 150.6 | 33.3 | 159.9 | 8.9 | 164.1 | 96.2 |

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

| Date | Dworshak | | Brownlee Canyon | | Hells Granite | | Lower Granite | | Little Goose | | Lower Monumental | | Ice Harbor | |
|----------|----------|-------|-----------------|---------|---------------|-------|---------------|-------|--------------|-------|------------------|-------|------------|-------|
| | Flow | Spill | Inflow | Outflow | Flow | Spill | Flow | Spill | Flow | Spill | Flow | Spill | Flow | Spill |
| 06/10/05 | 5.3 | 0.0 | 13.2 | 11.9 | 54.1 | 0.0 | 54.1 | 0.0 | 56.5 | 0.0 | 57.8 | 44.2 | | |
| 06/11/05 | 5.3 | 0.0 | 12.9 | 11.2 | 51.6 | 0.0 | 50.4 | 0.0 | 51.6 | 0.0 | 50.7 | 43.1 | | |
| 06/12/05 | 5.3 | 0.0 | 12.7 | 12.5 | 50.3 | 0.0 | 49.0 | 0.0 | 51.0 | 0.0 | 53.3 | 25.3 | | |
| 06/13/05 | 2.2 | 0.0 | --- | 12.5 | 50.6 | 0.0 | 51.2 | 0.0 | 51.9 | 0.0 | 50.9 | 18.5 | | |
| 06/14/05 | 3.0 | 0.0 | 10.9 | 15.4 | 50.4 | 0.0 | 51.5 | 0.0 | 53.7 | 0.0 | 53.3 | 37.5 | | |
| 06/15/05 | 5.2 | 0.0 | 10.4 | 8.8 | 48.3 | 0.0 | 47.3 | 0.0 | 49.6 | 0.0 | 52.6 | 45.0 | | |
| 06/16/05 | 5.1 | 0.0 | 10.4 | 8.8 | 44.8 | 0.0 | 43.9 | 0.0 | 44.6 | 0.0 | 45.0 | 37.5 | | |
| 06/17/05 | 4.3 | 0.0 | 11.9 | 8.8 | 46.3 | 0.0 | 45.3 | 0.0 | 45.9 | 0.0 | 47.4 | 39.5 | | |
| 06/18/05 | 4.3 | 0.0 | 11.7 | 11.3 | 50.7 | 0.0 | 50.9 | 0.0 | 52.8 | 0.0 | 52.0 | 23.5 | | |
| 06/19/05 | 4.3 | 0.0 | 13.1 | 14.4 | 52.6 | 0.1 | 53.7 | 0.0 | 55.3 | 0.0 | 54.2 | 18.7 | | |
| 06/20/05 | 4.3 | 0.0 | 12.7 | 12.7 | 55.6 | 39.2 | 51.8 | 36.7 | 53.8 | 15.4 | 53.2 | 31.0 | | |
| 06/21/05 | 4.3 | 0.0 | 12.3 | 17.4 | 51.5 | 23.4 | 49.6 | 33.5 | 46.9 | 19.6 | 51.4 | 41.5 | | |
| 06/22/05 | 4.2 | 0.0 | 10.8 | 12.6 | 51.0 | 18.1 | 51.8 | 33.5 | 51.3 | 19.1 | 53.2 | 44.8 | | |
| 06/23/05 | 3.9 | 0.0 | --- | --- | 51.5 | 33.9 | 51.2 | 38.0 | 47.9 | 20.2 | 47.0 | 36.7 | | |

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 | | |
| 06/10/05 | 204.2 | 85.7 | 187.0 | 53.7 | 182.7 | 66.4 | 196.8 | 92.1 | 3.5 | 89.7 |
| 06/11/05 | 195.8 | 78.6 | 189.2 | 52.6 | 195.9 | 69.5 | 196.9 | 88.7 | 5.4 | 91.3 |
| 06/12/05 | 173.9 | 61.1 | 164.0 | 46.0 | 158.5 | 62.1 | 182.7 | 90.5 | 0.0 | 80.7 |
| 06/13/05 | 168.9 | 54.6 | 164.1 | 43.4 | 163.9 | 63.6 | 175.9 | 94.3 | 0.1 | 70.0 |
| 06/14/05 | 175.3 | 67.1 | 175.1 | 48.8 | 177.1 | 66.3 | 188.7 | 94.9 | 0.0 | 82.3 |
| 06/15/05 | 179.7 | 63.2 | 189.3 | 45.6 | 185.2 | 62.9 | 177.5 | 95.0 | 0.0 | 71.0 |
| 06/16/05 | 185.0 | 68.0 | 172.0 | 40.5 | 166.9 | 62.1 | 186.7 | 95.6 | 0.0 | 79.6 |
| 06/17/05 | 191.9 | 76.2 | 177.9 | 41.3 | 175.3 | 63.1 | 191.0 | 91.7 | 2.7 | 85.1 |
| 06/18/05 | 195.4 | 79.2 | 191.1 | 52.1 | 187.0 | 67.6 | 181.7 | 92.5 | 0.0 | 77.7 |
| 06/19/05 | 137.4 | 36.0 | 139.6 | 38.1 | 136.8 | 53.7 | 155.2 | 92.0 | 0.0 | 51.5 |
| 06/20/05 | 184.1 | 71.6 | 178.9 | 41.1 | 180.2 | 63.1 | 197.5 | 91.4 | 7.3 | 87.3 |
| 06/21/05 | 202.5 | 86.3 | 177.9 | 62.5 | 176.5 | 48.8 | 186.7 | 86.8 | 3.2 | 84.9 |
| 06/22/05 | 203.4 | 56.9 | 203.8 | 59.6 | 193.7 | 67.5 | 198.7 | 86.3 | 10.8 | 90.1 |
| 06/23/05 | 218.1 | 51.7 | 230.3 | 68.7 | 222.9 | 74.3 | 224.8 | 91.2 | 20.7 | 101.5 |

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 | | | | | | | | | | | |
| | 06/23/05 | Chinook + Steelhead | 6 | 0 | 0 | 0.00% | 0.00% | 0 | 0 | 0 | 0 |
| Lower Monumental Dam | | | | | | | | | | | |
| | 06/20/05 | Chinook + Steelhead | 100 | 0 | 0 | 0.00% | 0.00% | 0 | 0 | 0 | 0 |
| McNary Dam | | | | | | | | | | | |
| | 06/17/05 | Chinook + Steelhead | 100 | 0 | 0 | 0.00% | 0.00% | 0 | 0 | 0 | 0 |
| | 06/19/05 | Chinook + Steelhead | 100 | 0 | 0 | 0.00% | 0.00% | 0 | 0 | 0 | 0 |
| | 06/23/05 | Chinook + Steelhead | 100 | 0 | 0 | 0.00% | 0.00% | 0 | 0 | 0 | 0 |
| Bonneville Dam | | | | | | | | | | | |
| | 06/14/05 | Chinook + Steelhead | 52 | 0 | 0 | 0.00% | 0.00% | 0 | 0 | 0 | 0 |
| | 06/18/05 | Chinook + Steelhead | 100 | 0 | 0 | 0.00% | 0.00% | 0 | 0 | 0 | 0 |
| | 06/21/05 | Chinook + Steelhead | 100 | 0 | 0 | 0.00% | 0.00% | 0 | 0 | 0 | 0 |
| Rock Island Dam | | | | | | | | | | | |
| | 06/23/05 | Chinook + Steelhead | 79 | 0 | 0 | 0.00% | 0.00% | 0 | 0 | 0 | 0 |

HATCHERY RELEASE LAST TWO WEEKS

Hatchery Release Summary

From: 6/10/2005 to 06/23/05

| Agency | Hatchery | Species | Race | MigYr | NumRel | RelStart | RelEnd | RelSite | RelRiver |
|--|--------------------------|---------|------|-------|-------------------|----------|----------|------------------------------|---------------------------|
| U.S. Fish and Wildlife Service | Little White Salmon NFH | CH0 | FA | 2005 | 1,471,000 | 06-23-05 | 06-23-05 | Little White Salmon Hatchery | Little White Salmon River |
| U.S. Fish and Wildlife Service Total | | | | | 1,471,000 | | | | |
| Washington Dept. of Fish and Wildlife | Klickitat Hatchery | CH0 | FA | 2005 | 4,090,000 | 06-13-05 | 06-20-05 | Klickitat Hatchery | Klickitat River |
| Washington Dept. of Fish and Wildlife | Priest Rapids Hatchery | CH0 | FA | 2005 | 6,700,000 | 06-09-05 | 06-18-05 | Priest Rapids Hatchery | Mid-Columbia River |
| Washington Dept. of Fish and Wildlife | Ringold Springs Hatchery | CH0 | FA | 2005 | 3,500,000 | 06-15-05 | 06-16-05 | Ringold Springs Hatchery | Mid-Columbia River |
| Washington Dept. of Fish and Wildlife | Wells Hatchery | CH0 | SU | 2005 | 235,000 | 06-15-05 | 06-15-05 | Wells Hatchery | Mid-Columbia River |
| Washington Dept. of Fish and Wildlife Total | | | | | 14,525,000 | | | | |
| Grand Total | | | | | 15,996,000 | | | | |

HATCHERY RELEASE NEXT TWO WEEKS

Hatchery Release Summary

From: 6/24/2005 to 7/7/2005

| Agency | Hatchery | Species | Race | MigYr | NumRel | RelStart | RelEnd | RelSite | RelRiver |
|--|-------------------------|---------|------|-------|------------------|----------|----------|----------------------|---------------------------|
| U.S. Fish and Wildlife Service | Little White Salmon NFH | CH0 | FA | 2005 | 553,000 | 06-24-05 | 06-30-05 | Willard Hatchery | Little White Salmon River |
| U.S. Fish and Wildlife Service Total | | | | | 553,000 | | | | |
| Washington Dept. of Fish and Wildlife | Eastbank Hatchery | CH0 | SU | 2005 | 370,930 | 06-28-05 | 06-29-05 | Turtle Rock Hatchery | Mid-Columbia River |
| Washington Dept. of Fish and Wildlife | Eastbank Hatchery | CH0 | SU | 2005 | 412,203 | 06-28-05 | 06-29-05 | Turtle Rock Hatchery | Mid-Columbia River |
| Washington Dept. of Fish and Wildlife Total | | | | | 783,133 | | | | |
| Grand Total | | | | | 1,336,133 | | | | |

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> | High | # | <u>24 h</u> | <u>12 h</u> | High | # | <u>24 h</u> | <u>12 h</u> | High | # | <u>24 h</u> | <u>12 h</u> | High | | # | | | |
| | Avg | Avg | | hr | Avg | Avg | | hr | Avg | Avg | | hr | Avg | Avg | | | hr | Avg | Avg | hr |
| 6/10 | --- | --- | --- | 0 | 125 | 126 | 127 | 24 | 112 | 113 | 113 | 24 | 109 | 110 | 111 | 24 | 109 | 110 | 110 | 24 |
| 6/11 | --- | --- | --- | 0 | 124 | 125 | 127 | 24 | 113 | 113 | 114 | 24 | 109 | 109 | 110 | 24 | 109 | 110 | 110 | 24 |
| 6/12 | --- | --- | --- | 0 | 123 | 124 | 125 | 24 | 113 | 113 | 113 | 24 | 108 | 109 | 110 | 24 | 109 | 109 | 109 | 23 |
| 6/13 | --- | --- | --- | 0 | 121 | 122 | 125 | 24 | 113 | 113 | 113 | 24 | 109 | 110 | 111 | 24 | 109 | 109 | 109 | 24 |
| 6/14 | --- | --- | --- | 0 | 120 | 121 | 124 | 24 | 114 | 114 | 115 | 24 | 109 | 110 | 112 | 24 | 109 | 110 | 110 | 24 |
| 6/15 | --- | --- | --- | 0 | 121 | 123 | 125 | 24 | 113 | 114 | 114 | 24 | 110 | 110 | 111 | 24 | 109 | 110 | 110 | 24 |
| 6/16 | --- | --- | --- | 0 | 120 | 122 | 123 | 24 | 114 | 114 | 115 | 23 | 111 | 112 | 112 | 21 | 110 | 111 | 112 | 22 |
| 6/17 | --- | --- | --- | 0 | 120 | 120 | 121 | 16 | 113 | 113 | 114 | 24 | 111 | 111 | 113 | 16 | 111 | 111 | 111 | 24 |
| 6/18 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 6/19 | --- | --- | --- | 0 | 120 | 121 | 121 | 24 | 111 | 112 | 112 | 24 | 110 | 111 | 112 | 24 | 110 | 110 | 110 | 24 |
| 6/20 | --- | --- | --- | 0 | 120 | 121 | 122 | 24 | 112 | 112 | 113 | 24 | 110 | 110 | 113 | 14 | 110 | 110 | 111 | 24 |
| 6/21 | --- | --- | --- | 0 | 121 | 123 | 124 | 24 | 112 | 113 | 113 | 24 | 109 | 109 | 112 | 10 | 111 | 112 | 112 | 24 |
| 6/22 | --- | --- | --- | 0 | 121 | 123 | 124 | 24 | 112 | 112 | 113 | 24 | 109 | 109 | 110 | 7 | 110 | 110 | 111 | 24 |
| 6/23 | --- | --- | --- | 0 | 121 | 123 | 124 | 24 | 112 | 112 | 112 | 24 | 109 | 110 | 113 | 14 | 110 | 110 | 110 | 24 |

Total Dissolved Gas Saturation Data at Mid Columbia River Sites

| Date | <u>Chief J. Dnst</u> | | | <u>Wells</u> | | | <u>Wells Dwnstrm</u> | | | <u>Rocky Reach</u> | | | <u>Rocky R. Tlwr</u> | | | # | | | | |
|------|----------------------|-------------|------|--------------|-------------|-------------|----------------------|----|-------------|--------------------|------|----|----------------------|-------------|------|----|-----|-----|-----|----|
| | <u>24 h</u> | <u>12 h</u> | High | # | <u>24 h</u> | <u>12 h</u> | High | # | <u>24 h</u> | <u>12 h</u> | High | # | <u>24 h</u> | <u>12 h</u> | High | | # | | | |
| | Avg | Avg | | hr | Avg | Avg | | hr | Avg | Avg | | hr | Avg | Avg | | | hr | Avg | Avg | hr |
| 6/10 | 109 | 110 | 110 | 24 | 109 | 109 | 110 | 22 | 110 | 110 | 111 | 22 | 110 | 111 | 111 | 24 | 111 | 111 | 112 | 24 |
| 6/11 | 110 | 110 | 111 | 24 | 109 | 110 | 111 | 24 | 110 | 110 | 111 | 24 | 110 | 111 | 111 | 24 | 111 | 111 | 111 | 24 |
| 6/12 | 110 | 111 | 111 | 24 | 108 | 109 | 110 | 24 | 109 | 109 | 110 | 24 | 109 | 109 | 110 | 24 | 110 | 110 | 110 | 22 |
| 6/13 | 109 | 110 | 111 | 22 | 108 | 109 | 109 | 24 | 109 | 109 | 110 | 24 | 108 | 108 | 108 | 24 | 109 | 109 | 109 | 24 |
| 6/14 | 110 | 110 | 111 | 20 | 108 | 109 | 109 | 24 | 109 | 109 | 110 | 24 | 109 | 109 | 109 | 24 | 110 | 110 | 110 | 24 |
| 6/15 | 109 | 110 | 111 | 23 | 109 | 109 | 110 | 24 | 109 | 110 | 110 | 24 | 109 | 109 | 110 | 24 | 110 | 110 | 111 | 24 |
| 6/16 | 111 | 111 | 112 | 22 | 110 | 110 | 110 | 20 | 111 | 111 | 112 | 20 | 111 | 112 | 112 | 24 | 111 | 111 | 111 | 24 |
| 6/17 | 111 | 112 | 112 | 24 | 110 | 110 | 110 | 24 | 111 | 111 | 111 | 24 | 112 | 112 | 112 | 24 | 112 | 112 | 113 | 24 |
| 6/18 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 6/19 | 110 | 111 | 111 | 24 | 110 | 110 | 110 | 24 | 111 | 111 | 111 | 24 | 110 | 111 | 111 | 24 | 110 | 111 | 111 | 24 |
| 6/20 | 109 | 110 | 111 | 24 | 110 | 110 | 110 | 23 | 111 | 111 | 112 | 23 | 110 | 111 | 111 | 24 | 111 | 112 | 112 | 24 |
| 6/21 | 111 | 112 | 112 | 24 | 110 | 110 | 111 | 24 | 112 | 112 | 112 | 24 | 112 | 113 | 114 | 24 | 113 | 113 | 114 | 24 |
| 6/22 | 110 | 111 | 112 | 24 | 110 | 110 | 110 | 24 | 111 | 111 | 112 | 24 | 111 | 112 | 113 | 24 | 112 | 112 | 114 | 24 |
| 6/23 | 110 | 110 | 111 | 17 | 109 | 109 | 110 | 23 | 110 | 110 | 111 | 23 | 109 | 110 | 111 | 24 | 110 | 111 | 111 | 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> | High | # | <u>24 h</u> | <u>12 h</u> | High | # | <u>24 h</u> | <u>12 h</u> | High | # | <u>24 h</u> | <u>12 h</u> | High | | # | | | |
| | Avg | Avg | | hr | Avg | Avg | | hr | Avg | Avg | | hr | Avg | Avg | | | hr | Avg | Avg | hr |
| 6/10 | 109 | 110 | 111 | 24 | 114 | 115 | 116 | 24 | 110 | 110 | 111 | 24 | 113 | 114 | 116 | 24 | 112 | 113 | 115 | 24 |
| 6/11 | 110 | 110 | 111 | 24 | 114 | 115 | 116 | 24 | 108 | 109 | 110 | 24 | 111 | 113 | 116 | 24 | 109 | 110 | 111 | 24 |
| 6/12 | 108 | 109 | 110 | 24 | 113 | 114 | 115 | 24 | 106 | 107 | 107 | 24 | 108 | 110 | 113 | 24 | 107 | 108 | 110 | 24 |
| 6/13 | 110 | 110 | 110 | 24 | 113 | 113 | 113 | 24 | 107 | 109 | 109 | 24 | 110 | 110 | 112 | 24 | 108 | 109 | 110 | 24 |
| 6/14 | 109 | 110 | 110 | 24 | 114 | 115 | 116 | 24 | 109 | 111 | 115 | 24 | 113 | 115 | 121 | 24 | 109 | 110 | 110 | 24 |
| 6/15 | 109 | 110 | 110 | 24 | 114 | 115 | 116 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 6/16 | 110 | 111 | 111 | 24 | 115 | 116 | 116 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 6/17 | 111 | 111 | 111 | 24 | 116 | 117 | 117 | 24 | 111 | 111 | 112 | 24 | 114 | 116 | 118 | 24 | 112 | 114 | 116 | 24 |
| 6/18 | --- | --- | --- | 0 | --- | --- | --- | 0 | 110 | 111 | 111 | 24 | 113 | 115 | 118 | 24 | 112 | 114 | 115 | 24 |
| 6/19 | 110 | 110 | 110 | 24 | 115 | 116 | 118 | 24 | 111 | 112 | 114 | 24 | 115 | 117 | 121 | 24 | 111 | 112 | 113 | 24 |
| 6/20 | 110 | 110 | 110 | 24 | 115 | 117 | 120 | 24 | 112 | 114 | 116 | 24 | 114 | 116 | 117 | 24 | 114 | 115 | 117 | 24 |
| 6/21 | 111 | 112 | 113 | 24 | 115 | 116 | 118 | 24 | 112 | 113 | 114 | 24 | 115 | 116 | 117 | 24 | 114 | 115 | 116 | 24 |
| 6/22 | 111 | 112 | 112 | 24 | 117 | 117 | 118 | 24 | 110 | 111 | 112 | 24 | 112 | 114 | 117 | 24 | 111 | 112 | 114 | 24 |
| 6/23 | 111 | 111 | 112 | 24 | 116 | 117 | 117 | 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>Clrwrtr-Peck</u> | | | <u>Anatone</u> | | | # | | | | |
|------|-----------------------|-------------|------|--------------|-------------|------|-----------------|-------------|------|---------------------|-------------|------|----------------|-------------|------|----|-----|-----|-----|-----|
| | <u>24 h</u> | <u>12 h</u> | High | <u>24 h</u> | <u>12 h</u> | High | <u>24 h</u> | <u>12 h</u> | High | <u>24 h</u> | <u>12 h</u> | High | <u>24 h</u> | <u>12 h</u> | High | | | | | |
| | Avg | Avg | | hr | Avg | | Avg | hr | | Avg | Avg | | hr | Avg | | | Avg | hr | Avg | Avg |
| 6/10 | 118 | 119 | 119 | 24 | 113 | 113 | 115 | 24 | 100 | 100 | 101 | 24 | 101 | 102 | 103 | 24 | 104 | 104 | 105 | 24 |
| 6/11 | 117 | 117 | 118 | 24 | 111 | 111 | 112 | 24 | 99 | 100 | 101 | 24 | 101 | 102 | 102 | 24 | 103 | 104 | 105 | 24 |
| 6/12 | 115 | 115 | 116 | 24 | 108 | 108 | 109 | 24 | 99 | 99 | 99 | 24 | 100 | 100 | 101 | 24 | 102 | 103 | 103 | 24 |
| 6/13 | 116 | 117 | 117 | 24 | 107 | 107 | 108 | 24 | 100 | 101 | 102 | 24 | 100 | 101 | 102 | 24 | 103 | 104 | 105 | 24 |
| 6/14 | 116 | 116 | 117 | 24 | 106 | 107 | 107 | 24 | 101 | 102 | 104 | 24 | 101 | 101 | 102 | 24 | 103 | 104 | 104 | 24 |
| 6/15 | --- | --- | --- | 0 | 103 | 104 | 104 | 24 | 100 | 101 | 102 | 24 | 101 | 102 | 103 | 24 | 103 | 104 | 105 | 24 |
| 6/16 | --- | --- | --- | 0 | 99 | 100 | 100 | 24 | 101 | 102 | 107 | 24 | 101 | 102 | 103 | 24 | 103 | 104 | 105 | 24 |
| 6/17 | 119 | 119 | 121 | 24 | 101 | 102 | 102 | 24 | 101 | 103 | 107 | 24 | 101 | 101 | 102 | 24 | 102 | 103 | 103 | 24 |
| 6/18 | 117 | 117 | 118 | 24 | 99 | 100 | 101 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 6/19 | 113 | 115 | 117 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 6/20 | 118 | 120 | 121 | 24 | 111 | 112 | 113 | 14 | 100 | 101 | 102 | 24 | 101 | 103 | 104 | 24 | 104 | 105 | 105 | 24 |
| 6/21 | 120 | 120 | 121 | 24 | 113 | 115 | 117 | 24 | 101 | 102 | 103 | 24 | 102 | 103 | 104 | 24 | 105 | 108 | 142 | 23 |
| 6/22 | 118 | 119 | 120 | 24 | 112 | 113 | 114 | 24 | 100 | 101 | 102 | 24 | 101 | 102 | 103 | 24 | 103 | 104 | 104 | 24 |
| 6/23 | --- | --- | --- | 0 | 112 | 114 | 114 | 24 | 100 | 101 | 101 | 24 | 101 | 102 | 103 | 24 | 102 | 104 | 104 | 24 |

Total Dissolved Gas Saturation Data at Snake River Sites

| Date | <u>Clrwrtr-Lewiston</u> | | | <u>Lower Granite</u> | | | <u>L. Granite Tlwr</u> | | | <u>Little Goose</u> | | | <u>L. Goose Tlwr</u> | | | # | | | | |
|------|-------------------------|-------------|------|----------------------|-------------|------|------------------------|-------------|------|---------------------|-------------|------|----------------------|-------------|------|----|-----|-----|-----|-----|
| | <u>24 h</u> | <u>12 h</u> | High | <u>24 h</u> | <u>12 h</u> | High | <u>24 h</u> | <u>12 h</u> | High | <u>24 h</u> | <u>12 h</u> | High | <u>24 h</u> | <u>12 h</u> | High | | | | | |
| | Avg | Avg | | hr | Avg | | Avg | hr | | Avg | Avg | | hr | Avg | | | Avg | hr | Avg | Avg |
| 6/10 | 103 | 104 | 106 | 24 | 103 | 104 | 104 | 24 | 102 | 102 | 103 | 24 | 106 | 108 | 108 | 24 | 107 | 108 | 108 | 24 |
| 6/11 | 102 | 103 | 104 | 24 | 103 | 104 | 104 | 24 | 102 | 102 | 103 | 24 | 106 | 107 | 107 | 24 | 105 | 105 | 107 | 24 |
| 6/12 | 101 | 102 | 103 | 24 | 103 | 103 | 103 | 24 | 102 | 102 | 103 | 24 | 104 | 104 | 105 | 24 | 103 | 103 | 104 | 24 |
| 6/13 | 102 | 104 | 105 | 24 | 103 | 104 | 105 | 24 | 102 | 102 | 102 | 24 | 103 | 103 | 104 | 24 | 102 | 103 | 103 | 24 |
| 6/14 | 102 | 103 | 105 | 24 | 103 | 103 | 103 | 24 | 102 | 102 | 102 | 24 | 103 | 104 | 104 | 24 | 102 | 103 | 104 | 24 |
| 6/15 | 103 | 104 | 106 | 24 | 103 | 104 | 105 | 24 | 103 | 104 | 113 | 24 | 103 | 103 | 105 | 24 | 103 | 103 | 106 | 24 |
| 6/16 | 102 | 104 | 105 | 24 | 106 | 107 | 108 | 24 | 103 | 104 | 105 | 24 | 104 | 105 | 106 | 24 | 104 | 104 | 105 | 24 |
| 6/17 | 101 | 102 | 103 | 24 | 105 | 105 | 106 | 24 | 103 | 103 | 104 | 24 | 104 | 105 | 105 | 24 | 103 | 104 | 104 | 24 |
| 6/18 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 6/19 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 6/20 | 103 | 104 | 106 | 24 | 103 | 105 | 106 | 24 | 119 | 120 | 120 | 24 | 104 | 105 | 106 | 24 | 117 | 117 | 118 | 24 |
| 6/21 | 103 | 105 | 106 | 24 | 104 | 105 | 106 | 24 | 112 | 115 | 120 | 24 | 105 | 105 | 105 | 24 | 116 | 117 | 118 | 24 |
| 6/22 | 102 | 103 | 105 | 24 | 103 | 103 | 104 | 24 | 110 | 110 | 112 | 24 | 103 | 104 | 104 | 24 | 115 | 117 | 119 | 24 |
| 6/23 | 102 | 103 | 105 | 23 | 105 | 107 | 110 | 24 | 116 | 118 | 119 | 24 | 103 | 103 | 103 | 24 | 116 | 119 | 120 | 24 |

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

| Date | <u>Lower Mon.</u> | | | <u>L. Mon. Tlwr</u> | | | <u>Ice Harbor</u> | | | <u>Ice Harbor Tlwr</u> | | | <u>McNary-Oregon</u> | | | # | | | | |
|------|-------------------|-------------|------|---------------------|-------------|------|-------------------|-------------|------|------------------------|-------------|------|----------------------|-------------|------|----|-----|-----|-----|-----|
| | <u>24 h</u> | <u>12 h</u> | High | <u>24 h</u> | <u>12 h</u> | High | <u>24 h</u> | <u>12 h</u> | High | <u>24 h</u> | <u>12 h</u> | High | <u>24 h</u> | <u>12 h</u> | High | | | | | |
| | Avg | Avg | | hr | Avg | | Avg | hr | | Avg | Avg | | hr | Avg | | | Avg | hr | Avg | Avg |
| 6/10 | 102 | 102 | 102 | 24 | 103 | 103 | 104 | 24 | 102 | 103 | 103 | 24 | 115 | 116 | 117 | 24 | 109 | 110 | 111 | 24 |
| 6/11 | 102 | 103 | 103 | 24 | 103 | 104 | 104 | 24 | 103 | 103 | 103 | 24 | 114 | 115 | 116 | 24 | 109 | 109 | 110 | 24 |
| 6/12 | 103 | 103 | 103 | 24 | 104 | 104 | 105 | 24 | 102 | 102 | 103 | 24 | 111 | 113 | 115 | 24 | 107 | 108 | 109 | 24 |
| 6/13 | 104 | 104 | 104 | 24 | 105 | 105 | 106 | 24 | 102 | 102 | 102 | 24 | 110 | 111 | 111 | 24 | 107 | 108 | 108 | 24 |
| 6/14 | 104 | 104 | 105 | 24 | 104 | 105 | 105 | 24 | 103 | 103 | 103 | 24 | 113 | 115 | 117 | 24 | 108 | 109 | 110 | 24 |
| 6/15 | 103 | 103 | 104 | 24 | 104 | 104 | 105 | 24 | 103 | 103 | 104 | 24 | 115 | 116 | 118 | 24 | 108 | 109 | 112 | 24 |
| 6/16 | 104 | 104 | 105 | 24 | 105 | 105 | 106 | 24 | 105 | 105 | 105 | 24 | 114 | 116 | 116 | 24 | 109 | 110 | 111 | 24 |
| 6/17 | 103 | 103 | 104 | 24 | 104 | 104 | 105 | 24 | 105 | 105 | 105 | 24 | 115 | 117 | 118 | 24 | 111 | 112 | 113 | 24 |
| 6/18 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | 110 | 111 | 113 | 24 |
| 6/19 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 6/20 | 103 | 103 | 103 | 24 | 115 | 117 | 118 | 24 | 103 | 103 | 104 | 24 | 113 | 115 | 115 | 24 | 110 | 112 | 113 | 24 |
| 6/21 | 104 | 104 | 105 | 24 | 118 | 118 | 119 | 24 | 104 | 104 | 104 | 24 | 114 | 114 | 115 | 24 | 110 | 112 | 116 | 24 |
| 6/22 | 104 | 106 | 110 | 24 | 116 | 117 | 117 | 24 | 104 | 105 | 106 | 24 | 115 | 116 | 118 | 24 | 109 | 109 | 110 | 24 |
| 6/23 | 110 | 111 | 114 | 24 | 118 | 120 | 120 | 24 | 108 | 109 | 110 | 24 | 114 | 116 | 116 | 24 | 110 | 111 | 115 | 24 |

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> |
| | Avg | Avg | High | hr | Avg | Avg | High | hr | Avg | Avg | High | hr | Avg | Avg | High | hr | Avg | AVG | High | hr |
| 6/10 | 110 | 110 | 110 | 24 | 114 | 118 | 119 | 24 | 105 | 105 | 105 | 23 | 110 | 116 | 118 | 24 | 108 | 110 | 112 | 23 |
| 6/11 | 109 | 110 | 110 | 24 | 113 | 117 | 118 | 24 | 104 | 104 | 105 | 23 | 110 | 116 | 118 | 24 | 107 | 110 | 111 | 23 |
| 6/12 | 107 | 107 | 108 | 24 | 111 | 116 | 116 | 24 | 103 | 103 | 104 | 23 | 110 | 116 | 118 | 24 | 104 | 106 | 108 | 23 |
| 6/13 | 107 | 107 | 108 | 24 | 111 | 115 | 116 | 24 | 103 | 104 | 104 | 23 | 110 | 116 | 118 | 24 | 107 | 109 | 110 | 23 |
| 6/14 | 108 | 108 | 108 | 24 | 112 | 116 | 118 | 24 | 105 | 105 | 105 | 23 | 110 | 116 | 118 | 24 | 108 | 110 | 112 | 23 |
| 6/15 | 107 | 108 | 108 | 24 | 112 | 116 | 117 | 24 | 104 | 105 | 105 | 23 | 110 | 116 | 118 | 24 | 108 | 111 | 114 | 23 |
| 6/16 | 110 | 110 | 111 | 24 | 113 | 116 | 117 | 24 | 106 | 106 | 106 | 23 | 111 | 116 | 118 | 24 | 109 | 111 | 113 | 23 |
| 6/17 | 111 | 111 | 112 | 24 | 114 | 117 | 118 | 24 | 105 | 105 | 106 | 23 | 111 | 117 | 118 | 24 | 109 | 111 | 113 | 23 |
| 6/18 | 111 | 111 | 112 | 24 | 114 | 118 | 119 | 24 | 105 | 106 | 106 | 23 | 111 | 116 | 118 | 24 | 108 | 111 | 113 | 23 |
| 6/19 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 6/20 | 111 | 112 | 113 | 24 | 114 | 116 | 118 | 24 | 107 | 108 | 111 | 23 | 112 | 117 | 118 | 24 | 111 | 113 | 114 | 23 |
| 6/21 | 111 | 112 | 113 | 24 | 115 | 118 | 119 | 24 | 108 | 108 | 109 | 23 | 116 | 118 | 119 | 24 | 109 | 110 | 113 | 23 |
| 6/22 | 110 | 110 | 111 | 24 | 113 | 116 | 120 | 24 | 106 | 106 | 106 | 23 | 116 | 117 | 119 | 24 | 107 | 108 | 110 | 23 |
| 6/23 | 109 | 110 | 111 | 24 | 113 | 115 | 117 | 24 | 106 | 107 | 108 | 23 | 118 | 119 | 119 | 24 | 107 | 108 | 110 | 23 |

Total Dissolved Gas Saturation Data at Lower Columbia River Sites

| Date | <u>The Dalles Dnst</u> | | | | <u>Bonneville</u> | | | | <u>Warrendale</u> | | | | <u>CamasWashougal</u> | | | | <u>Cascade Island</u> | | | |
|------|------------------------|-------------|------|----------|-------------------|-------------|------|----------|-------------------|------------|------|----------|-----------------------|------------|------|----------|-----------------------|------------|------|----------|
| | <u>24 h</u> | <u>12 h</u> | | <u>#</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> |
| | Avg | Avg | High | hr | Avg | Avg | High | hr | Avg | Avg | High | hr | Avg | Avg | High | hr | Avg | Avg | High | hr |
| 6/10 | 113 | 115 | 117 | 24 | 109 | 110 | 111 | 23 | 115 | 116 | 119 | 23 | 111 | 113 | 115 | 24 | 115 | 116 | 118 | 17 |
| 6/11 | 113 | 114 | 115 | 24 | 108 | 108 | 109 | 23 | 114 | 115 | 117 | 23 | 110 | 111 | 113 | 24 | 115 | 116 | 118 | 17 |
| 6/12 | 111 | 112 | 114 | 24 | 106 | 107 | 108 | 23 | 113 | 114 | 116 | 23 | 110 | 112 | 114 | 24 | 115 | 116 | 120 | 17 |
| 6/13 | 112 | 113 | 113 | 24 | 107 | 108 | 109 | 23 | 115 | 117 | 119 | 23 | 112 | 114 | 116 | 24 | 115 | 116 | 120 | 17 |
| 6/14 | 112 | 114 | 115 | 24 | 108 | 108 | 109 | 23 | 114 | 116 | 120 | 23 | 112 | 113 | 115 | 24 | 115 | 116 | 121 | 17 |
| 6/15 | 113 | 114 | 116 | 23 | 108 | 109 | 110 | 23 | 116 | 118 | 120 | 23 | 112 | 115 | 118 | 24 | 115 | 116 | 121 | 17 |
| 6/16 | 114 | 115 | 117 | 24 | 110 | 111 | 112 | 23 | 116 | 119 | 122 | 23 | 113 | 115 | 116 | 24 | --- | --- | --- | 0 |
| 6/17 | 113 | 114 | 116 | 24 | 111 | 111 | 112 | 23 | 116 | 117 | 119 | 23 | 111 | 114 | 116 | 24 | 116 | 116 | 120 | 17 |
| 6/18 | 114 | 115 | 116 | 24 | 110 | 111 | 111 | 23 | 115 | 117 | 119 | 23 | 112 | 113 | 115 | 24 | 115 | 116 | 120 | 17 |
| 6/19 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | 115 | 115 | 120 | 15 |
| 6/20 | 114 | 115 | 116 | 24 | 110 | 111 | 111 | 23 | 116 | 118 | 120 | 23 | 114 | 117 | 119 | 24 | 115 | 115 | 118 | 17 |
| 6/21 | 112 | 114 | 116 | 24 | 109 | 110 | 111 | 23 | 114 | 116 | 118 | 23 | 111 | 113 | 114 | 24 | 115 | 115 | 117 | 17 |
| 6/22 | 113 | 113 | 114 | 24 | 106 | 107 | 108 | 23 | 113 | 114 | 116 | 23 | 110 | 111 | 113 | 24 | 115 | 116 | 118 | 17 |
| 6/23 | 113 | 114 | 115 | 24 | 106 | 108 | 108 | 23 | 113 | 115 | 118 | 23 | 109 | 111 | 115 | 24 | 117 | 117 | 120 | 17 |

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>

| COMBINED YEARLING CHINOOK | | | | | | | | | | | |
|----------------------------------|---------------|---------------|--------------|--------------|------------------|------------------|----------------|---------------|------------------|------------------|------------------|
| | WTB | IMN | GRN | LEW | LGR | LGS | LMN | RIS | MCN | JDA | BO2 |
| Date | (Coll) | (Coll) | (Coll) | (Coll) | (INDEX) | (INDEX) | (INDEX) | (INDEX) | (INDEX) | (INDEX) | (INDEX) |
| 06/10/2005 | --- | 18 | --- | --- | 1,744 | 800 | 232 | 259 | 3,406 | 1,360 | 1,985 |
| 06/11/2005 | * | --- | 13 | --- | 500 | 100 | 220 | 101 | --- | 1,901 | 2,157 |
| 06/12/2005 | --- | 31 | --- | --- | 750 | 800 | 252 | 21 | 6,077 | 1,910 | 1,423 |
| 06/13/2005 | * | --- | 30 | --- | 850 | 1,301 | 266 | 46 | --- | 1,640 | 1,145 |
| 06/14/2005 | --- | 29 | --- | --- | 2,150 | 300 | 88 | 47 | 6,559 | 1,487 | 656 |
| 06/15/2005 | * | --- | 21 | --- | 1,000 | 853 | 135 | 0 | --- | 1,245 | 787 |
| 06/16/2005 | --- | --- | --- | 11 | 1,325 | 700 | 140 | 5 | 4,920 | 718 | 522 |
| 06/17/2005 | * | --- | --- | 20 | 750 | 225 | 10 | 5 | --- | 1,295 | 1,369 |
| 06/18/2005 | --- | --- | --- | 8 | 575 | 490 | 170 | 0 | 4,945 | 1,032 | 740 |
| 06/19/2005 | * | --- | --- | 11 | 2,400 | 181 | 174 | 0 | --- | 822 | 589 |
| 06/20/2005 | --- | --- | --- | 11 | 1,615 | 1,009 | 256 | 0 | 1,270 | 1,186 | 376 |
| 06/21/2005 | * | --- | --- | 18 | 832 | 714 | 14 | 5 | --- | 2,316 | 311 |
| 06/22/2005 | --- | --- | --- | 2 | 125 | 0 | 6 | 0 | 902 | 585 | 247 |
| 06/23/2005 | * | --- | --- | --- | 8 | 17 | 22 | 0 | --- | 142 | 404 |
| <hr/> | | | | | | | | | | | |
| Total: | 0 | 142 | 0 | 81 | 14,624 | 7,490 | 1,985 | 489 | 28,079 | 17,639 | 12,711 |
| # Days: | 0 | 6 | 0 | 7 | 14 | 14 | 14 | 14 | 7 | 14 | 14 |
| Average: | 0 | 24 | 0 | 12 | 1,045 | 535 | 142 | 35 | 4,011 | 1,260 | 908 |
| YTD | 43,641 | 42,756 | 5,793 | 1,810 | 5,671,420 | 2,474,892 | 704,935 | 14,781 | 1,198,271 | 1,405,332 | 1,524,964 |

| COMBINED SUBYEARLING CHINOOK | | | | | | | | | | | |
|-------------------------------------|----------|-----------|--------------|--------------|------------------|------------------|----------------|--------------|------------------|----------------|------------------|
| | WTB | IMN | GRN | LEW | LGR | LGS | LMN | RIS | MCN | JDA | BO2 |
| Date | (Coll) | (Coll) | (Coll) | (Coll) | (INDEX) | (INDEX) | (INDEX) | (INDEX) | (INDEX) | (INDEX) | (INDEX) |
| 06/10/2005 | --- | 0 | --- | --- | 40,012 | 31,744 | 5,172 | 225 | 22,447 | 8,411 | 14,888 |
| 06/11/2005 | * | --- | 1 | --- | 28,600 | 39,465 | 3,310 | 247 | --- | 14,450 | 12,452 |
| 06/12/2005 | --- | 1 | --- | --- | 26,050 | 71,951 | 9,879 | 264 | 51,876 | 12,648 | 12,727 |
| 06/13/2005 | * | --- | 1 | --- | 38,800 | 40,954 | 7,206 | 253 | --- | 8,365 | 14,753 |
| 06/14/2005 | --- | 0 | --- | --- | 45,300 | 26,608 | 10,399 | 284 | 87,597 | 4,615 | 14,947 |
| 06/15/2005 | * | --- | 0 | --- | 23,600 | 22,371 | 9,663 | 318 | --- | 3,699 | 10,993 |
| 06/16/2005 | --- | --- | --- | 10 | 18,025 | 18,505 | 8,024 | 84 | 431,093 | 9,036 | 9,037 |
| 06/17/2005 | * | --- | --- | 0 | 21,050 | 7,476 | 3,790 | 41 | --- | 8,378 | 9,159 |
| 06/18/2005 | --- | --- | --- | 1 | 35,400 | 16,724 | 4,472 | 78 | 518,320 | 14,126 | 10,629 |
| 06/19/2005 | * | --- | --- | 0 | 34,550 | 11,563 | 6,450 | 64 | --- | 65,198 | 10,639 |
| 06/20/2005 | --- | --- | --- | 1 | 29,958 | 46,127 | 10,829 | 63 | 403,519 | 76,151 | 14,485 |
| 06/21/2005 | * | --- | --- | 1 | 20,972 | 24,053 | 1,852 | 137 | --- | 124,892 | 68,620 |
| 06/22/2005 | --- | --- | --- | 4 | 3,160 | 1,631 | 314 | 126 | 281,385 | 92,786 | 67,040 |
| 06/23/2005 | * | --- | --- | --- | 1,997 | 1,526 | 1,343 | 182 | --- | 62,519 | 103,852 |
| <hr/> | | | | | | | | | | | |
| Total: | 0 | 3 | 0 | 17 | 367,474 | 360,698 | 82,703 | 2,366 | 1,796,237 | 505,274 | 374,221 |
| # Days: | 0 | 6 | 0 | 7 | 14 | 14 | 14 | 14 | 7 | 14 | 14 |
| Average: | 0 | 1 | 0 | 2 | 26,248 | 25,764 | 5,907 | 169 | 256,605 | 36,091 | 26,730 |
| YTD | 0 | 86 | 1,224 | 1,152 | 1,652,666 | 1,153,895 | 160,594 | 8,916 | 2,113,270 | 628,275 | 2,295,328 |

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) |
| 06/10/2005 | --- | 0 | --- | --- | 205 | 250 | 16 | 128 | 177 | 680 | 1,338 |
| 06/11/2005 | * | --- | 0 | --- | 100 | 0 | 6 | 48 | --- | 356 | 1,384 |
| 06/12/2005 | --- | 0 | --- | --- | 100 | 0 | 10 | 17 | 821 | 703 | 1,502 |
| 06/13/2005 | * | --- | 0 | --- | 450 | 200 | 10 | 29 | --- | 357 | 596 |
| 06/14/2005 | --- | 0 | --- | --- | 150 | 250 | 28 | 22 | 1,127 | 280 | 656 |
| 06/15/2005 | * | --- | 0 | --- | 100 | 50 | 45 | 31 | --- | 189 | 612 |
| 06/16/2005 | --- | --- | --- | 0 | 100 | 0 | 0 | 3 | 159 | 135 | 684 |
| 06/17/2005 | * | --- | --- | 0 | 50 | 0 | 0 | 0 | --- | 431 | 442 |
| 06/18/2005 | --- | --- | --- | 0 | 250 | 120 | 10 | 10 | 354 | 158 | 856 |
| 06/19/2005 | * | --- | --- | 0 | 450 | 140 | 18 | 8 | --- | 54 | 702 |
| 06/20/2005 | --- | --- | --- | 0 | 222 | 112 | 23 | 4 | 0 | 241 | 167 |
| 06/21/2005 | * | --- | --- | 0 | 166 | 34 | 0 | 8 | --- | 66 | 221 |
| 06/22/2005 | --- | --- | --- | 0 | 0 | 0 | 0 | 12 | 0 | 96 | 433 |
| 06/23/2005 | * | --- | --- | --- | 0 | 23 | 3 | 12 | --- | 0 | 1,042 |
| <hr/> | | | | | | | | | | | |
| Total: | 0 | 0 | 0 | 0 | 2,343 | 1,179 | 169 | 332 | 2,638 | 3,746 | 10,635 |
| # Days: | 0 | 6 | 0 | 7 | 14 | 14 | 14 | 14 | 7 | 14 | 14 |
| Average: | 0 | 0 | 0 | 0 | 167 | 84 | 12 | 24 | 377 | 268 | 760 |
| YTD | 0 | 0 | 0 | 110 | 305,021 | 191,453 | 24,279 | 36,987 | 102,233 | 190,967 | 768,819 |

| 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) |
| 06/10/2005 | --- | 44 | --- | --- | 1,744 | 5,452 | 448 | 47 | 184 | 317 | 432 |
| 06/11/2005 | * | --- | 56 | --- | 1,700 | 1,300 | 182 | 34 | --- | 428 | 692 |
| 06/12/2005 | --- | 41 | --- | --- | 1,050 | 1,250 | 296 | 24 | 0 | 393 | 553 |
| 06/13/2005 | * | --- | 88 | --- | 1,950 | 700 | 252 | 21 | --- | 155 | 183 |
| 06/14/2005 | --- | 37 | --- | --- | 2,800 | 1,004 | 426 | 41 | 323 | 103 | 328 |
| 06/15/2005 | * | --- | 27 | --- | 2,100 | 1,350 | 235 | 16 | --- | 137 | 393 |
| 06/16/2005 | --- | --- | --- | 1 | 2,625 | 750 | 75 | 2 | 479 | 117 | 209 |
| 06/17/2005 | * | --- | --- | 0 | 1,700 | 250 | 130 | 6 | --- | 289 | 339 |
| 06/18/2005 | --- | --- | --- | 1 | 3,225 | 670 | 116 | 21 | 178 | 190 | 148 |
| 06/19/2005 | * | --- | --- | 1 | 4,450 | 820 | 270 | 16 | --- | 27 | 102 |
| 06/20/2005 | --- | --- | --- | 0 | 2,914 | 1,691 | 731 | 3 | 0 | 45 | 167 |
| 06/21/2005 | * | --- | --- | 1 | 2,164 | 914 | 130 | 9 | --- | 0 | 131 |
| 06/22/2005 | --- | --- | --- | 0 | 438 | 60 | 44 | 26 | 178 | 96 | 113 |
| 06/23/2005 | * | --- | --- | --- | 227 | 69 | 10 | 23 | --- | 0 | 234 |
| <hr/> | | | | | | | | | | | |
| Total: | 0 | 293 | 0 | 4 | 29,087 | 16,280 | 3,345 | 289 | 1,342 | 2,297 | 4,024 |
| # Days: | 0 | 6 | 0 | 7 | 14 | 14 | 14 | 14 | 7 | 14 | 14 |
| Average: | 0 | 49 | 0 | 1 | 2,078 | 1,163 | 239 | 21 | 192 | 164 | 287 |
| YTD | 3,754 | 36,509 | 2,453 | 7,263 | 5,933,913 | 2,919,917 | 674,512 | 15,880 | 188,356 | 523,588 | 185,517 |

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) |
| 06/10/2005 | --- | 0 | --- | --- | 103 | 152 | 16 | 1 | 534 | 159 | 86 |
| 06/11/2005 * | --- | 0 | --- | --- | 100 | 150 | 10 | 1 | --- | 309 | 122 |
| 06/12/2005 | --- | 0 | --- | --- | 100 | 50 | 42 | 0 | 657 | 219 | 79 |
| 06/13/2005 * | --- | 0 | --- | --- | 200 | 50 | 58 | 0 | --- | 117 | 0 |
| 06/14/2005 | --- | 0 | --- | --- | 100 | 0 | 10 | 2 | 13 | 85 | 94 |
| 06/15/2005 * | --- | 0 | --- | --- | 0 | 100 | 15 | 1 | --- | 228 | 44 |
| 06/16/2005 | --- | --- | --- | 0 | 75 | 0 | 15 | 0 | 2 | 82 | 19 |
| 06/17/2005 * | --- | --- | --- | 0 | 100 | 50 | 10 | 0 | --- | 116 | 101 |
| 06/18/2005 | --- | --- | --- | 0 | 50 | 20 | 12 | 0 | 178 | 206 | 53 |
| 06/19/2005 * | --- | --- | --- | 0 | 100 | 40 | 18 | 0 | --- | 0 | 11 |
| 06/20/2005 | --- | --- | --- | 0 | 32 | 149 | 12 | 0 | 140 | 92 | 42 |
| 06/21/2005 * | --- | --- | --- | 0 | 416 | 169 | 0 | 2 | --- | 66 | 10 |
| 06/22/2005 | --- | --- | --- | 1 | 16 | 181 | 0 | 0 | 0 | 0 | 21 |
| 06/23/2005 * | --- | --- | --- | --- | 0 | 17 | 7 | 0 | --- | 0 | 85 |
| <hr/> | | | | | | | | | | | |
| Total: | 0 | 0 | 0 | 1 | 1,392 | 1,128 | 225 | 7 | 1,524 | 1,679 | 767 |
| # Days: | 0 | 6 | 0 | 7 | 14 | 14 | 14 | 14 | 7 | 14 | 14 |
| Average: | 0 | 0 | 0 | 0 | 99 | 81 | 16 | 1 | 218 | 120 | 55 |
| YTD | 115 | 0 | 0 | 263 | 38,376 | 41,220 | 8,142 | 1,691 | 102,036 | 83,643 | 41,318 |

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

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

Definitions for Smolt Index Counts

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

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

Two Week Transportation Summary

Source: Fish Passage Center

Updated:

6/24/05 7:07 AM

| | | 06/11/05 | | TO | 06/24/05 | | | |
|--------------------------------|--------------------------|-----------|--------|-------|----------|--------|-------------|--|
| | | Species | | | | | | |
| Site | Data | CH0 | CH1 | CO | SO | ST | Grand Total | |
| LGR | Sum of NumberCollected | 343,575 | 13,610 | 2,175 | 1,085 | 26,670 | 387,115 | |
| | Sum of NumberBarged | 342,349 | 13,332 | 2,174 | 1,076 | 26,124 | 385,055 | |
| | Sum of NumberBypassed | 351 | 242 | 0 | 0 | 525 | 1,118 | |
| | Sum of Numbertrucked | 0 | 0 | 0 | 0 | 0 | 0 | |
| | Sum of SampleMorts | 62 | 2 | 0 | 0 | 0 | 64 | |
| | Sum of FacilityMorts | 806 | 34 | 1 | 9 | 21 | 871 | |
| | Sum of ResearchMorts | 7 | 0 | 0 | 0 | 0 | 7 | |
| | Sum of TotalProjectMorts | 875 | 36 | 1 | 9 | 21 | 942 | |
| LGS | Sum of NumberCollected | 332,656 | 6,779 | 1,118 | 848 | 15,221 | 356,622 | |
| | Sum of NumberBarged | 331,937 | 6,754 | 1,115 | 843 | 15,166 | 355,815 | |
| | Sum of NumberBypassed | 141 | 2 | 2 | 0 | 0 | 145 | |
| | Sum of Numbertrucked | 0 | 0 | 0 | 0 | 0 | 0 | |
| | Sum of SampleMorts | 10 | 0 | 1 | 0 | 3 | 14 | |
| | Sum of FacilityMorts | 568 | 23 | 0 | 5 | 52 | 648 | |
| | Sum of ResearchMorts | 0 | 0 | 0 | 0 | 0 | 0 | |
| | Sum of TotalProjectMorts | 578 | 23 | 1 | 5 | 55 | 662 | |
| LMN | Sum of NumberCollected | 79,682 | 1,932 | 165 | 220 | 3,163 | 85,162 | |
| | Sum of NumberBarged | 76,051 | 1,928 | 165 | 218 | 3,135 | 81,497 | |
| | Sum of NumberBypassed | 3,523 | 0 | 0 | 0 | 17 | 3,540 | |
| | Sum of Numbertrucked | 0 | 0 | 0 | 0 | 0 | 0 | |
| | Sum of SampleMorts | 22 | 0 | 0 | 0 | 1 | 23 | |
| | Sum of FacilityMorts | 86 | 4 | 0 | 2 | 10 | 102 | |
| | Sum of ResearchMorts | 0 | 0 | 0 | 0 | 0 | 0 | |
| | Sum of TotalProjectMorts | 108 | 4 | 0 | 2 | 11 | 125 | |
| MCN | Sum of NumberCollected | 1,112,184 | 17,056 | 1,606 | 912 | 809 | 1,132,567 | |
| | Sum of NumberBarged | 0 | 0 | 0 | 0 | 0 | 0 | |
| | Sum of NumberBypassed | 1,111,390 | 16,912 | 1,600 | 899 | 797 | 1,131,598 | |
| | Sum of Numbertrucked | 0 | 0 | 0 | 0 | 0 | 0 | |
| | Sum of SampleMorts | 61 | 5 | 0 | 1 | 0 | 67 | |
| | Sum of FacilityMorts | 733 | 139 | 6 | 12 | 12 | 902 | |
| | Sum of ResearchMorts | 0 | 0 | 0 | 0 | 0 | 0 | |
| | Sum of TotalProjectMorts | 794 | 144 | 6 | 13 | 12 | 969 | |
| Total Sum of NumberCollected | | 1,868,097 | 39,377 | 5,064 | 3,065 | 45,863 | 1,961,466 | |
| Total Sum of NumberBarged | | 750,337 | 22,014 | 3,454 | 2,137 | 44,425 | 822,367 | |
| Total Sum of NumberBypassed | | 1,115,405 | 17,156 | 1,602 | 899 | 1,339 | 1,136,401 | |
| Total Sum of Numbertrucked | | 0 | 0 | 0 | 0 | 0 | 0 | |
| Total Sum of SampleMorts | | 155 | 7 | 1 | 1 | 4 | 168 | |
| Total Sum of FacilityMorts | | 2,193 | 200 | 7 | 28 | 95 | 2,523 | |
| Total Sum of ResearchMorts | | 7 | 0 | 0 | 0 | 0 | 7 | |
| Total Sum of TotalProjectMorts | | 2,355 | 207 | 8 | 29 | 99 | 2,698 | |

YTD Transportation Summary

Source: Fish Passage Center

Updated:

6/24/05 7:07 AM

TO: 06/24/05

| | | Species | | | | | |
|--------------------------------|--------------------------|-----------|-----------|---------|---------|-----------|-------------|
| Site | Data | CH0 | CH1 | CO | SO | ST | Grand Total |
| LGR | Sum of NumberCollected | 1,536,391 | 5,536,402 | 285,989 | 31,600 | 5,590,071 | 12,980,453 |
| | Sum of NumberBarged | 1,512,620 | 5,234,760 | 257,622 | 30,267 | 5,093,314 | 12,128,583 |
| | Sum of NumberBypassed | 11,176 | 278,605 | 26,286 | 490 | 448,421 | 764,978 |
| | Sum of NumberTrucked | 404 | 8,883 | 871 | 487 | 43,015 | 53,660 |
| | Sum of SampleMorts | 310 | 450 | 16 | 15 | 64 | 855 |
| | Sum of FacilityMorts | 11,874 | 13,601 | 1,194 | 341 | 5,255 | 32,265 |
| | Sum of ResearchMorts | 7 | 103 | 0 | 0 | 2 | 112 |
| | Sum of TotalProjectMorts | 12,191 | 14,154 | 1,210 | 356 | 5,321 | 33,232 |
| LGS | Sum of NumberCollected | 1,123,062 | 2,451,083 | 185,861 | 38,740 | 2,856,442 | 6,655,188 |
| | Sum of NumberBarged | 1,070,482 | 2,020,077 | 151,515 | 37,727 | 2,281,224 | 5,561,025 |
| | Sum of NumberBypassed | 49,499 | 424,201 | 34,261 | 924 | 566,487 | 1,075,372 |
| | Sum of NumberTrucked | 4 | 223 | 0 | 27 | 291 | 545 |
| | Sum of SampleMorts | 69 | 126 | 11 | 4 | 65 | 275 |
| | Sum of FacilityMorts | 3,008 | 6,447 | 74 | 58 | 8,375 | 17,962 |
| | Sum of ResearchMorts | 0 | 9 | 0 | 0 | 0 | 9 |
| | Sum of TotalProjectMorts | 3,077 | 6,582 | 85 | 62 | 8,440 | 18,246 |
| LMN | Sum of NumberCollected | 155,725 | 670,058 | 21,520 | 7,305 | 613,613 | 1,468,221 |
| | Sum of NumberBarged | 150,862 | 511,221 | 16,997 | 7,117 | 456,147 | 1,142,344 |
| | Sum of NumberBypassed | 4,641 | 145,571 | 4,521 | 99 | 154,879 | 309,711 |
| | Sum of NumberTrucked | 0 | 12,712 | 0 | 60 | 2,235 | 15,007 |
| | Sum of SampleMorts | 28 | 39 | 0 | 3 | 26 | 96 |
| | Sum of FacilityMorts | 194 | 515 | 2 | 26 | 326 | 1,063 |
| | Sum of ResearchMorts | 0 | 0 | 0 | 0 | 0 | 0 |
| | Sum of TotalProjectMorts | 222 | 554 | 2 | 29 | 352 | 1,159 |
| MCN | Sum of NumberCollected | 1,291,760 | 705,054 | 60,280 | 58,912 | 113,826 | 2,229,832 |
| | Sum of NumberBarged | 0 | 0 | 0 | 0 | 0 | 0 |
| | Sum of NumberBypassed | 1,290,536 | 702,217 | 60,102 | 58,589 | 113,558 | 2,225,002 |
| | Sum of NumberTrucked | 0 | 0 | 0 | 0 | 0 | 0 |
| | Sum of SampleMorts | 124 | 117 | 8 | 18 | 6 | 273 |
| | Sum of FacilityMorts | 1,090 | 2,644 | 164 | 293 | 260 | 4,451 |
| | Sum of ResearchMorts | 10 | 76 | 6 | 12 | 2 | 106 |
| | Sum of TotalProjectMorts | 1,224 | 2,837 | 178 | 323 | 268 | 4,830 |
| Total Sum of NumberCollected | | 4,106,938 | 9,362,597 | 553,650 | 136,557 | 9,173,952 | 23,333,694 |
| Total Sum of NumberBarged | | 2,733,964 | 7,766,058 | 426,134 | 75,111 | 7,830,685 | 18,831,952 |
| Total Sum of NumberBypassed | | 1,355,852 | 1,550,594 | 125,170 | 60,102 | 1,283,345 | 4,375,063 |
| Total Sum of NumberTrucked | | 408 | 21,818 | 871 | 574 | 45,541 | 69,212 |
| Total Sum of SampleMorts | | 531 | 732 | 35 | 40 | 161 | 1,499 |
| Total Sum of FacilityMorts | | 16,166 | 23,207 | 1,434 | 718 | 14,216 | 55,741 |
| Total Sum of ResearchMorts | | 17 | 188 | 6 | 12 | 4 | 227 |
| Total Sum of TotalProjectMorts | | 16,714 | 24,127 | 1,475 | 770 | 14,381 | 57,467 |

Cumulative Adult Passage at Mainstem Dams Through: 06/23

| DAM | Spring Chinook | | | | | | Summer Chinook | | | | | | Fall Chinook | | | | | |
|-----|----------------|-------|---------|-------|------------|-------|----------------|-------|--------|-------|------------|-------|--------------|------|-------|------|------------|------|
| | 2005 | | 2004 | | 10-Yr Avg. | | 2005 | | 2004 | | 10-Yr Avg. | | 2005 | | 2004 | | 10-Yr Avg. | |
| | Adult | Jack | Adult | Jack | Adult | Jack | Adult | Jack | Adult | Jack | Adult | Jack | Adult | Jack | Adult | Jack | Adult | Jack |
| BON | 74,038 | 4,288 | 170,152 | 8,885 | 145,297 | 8,221 | 37,888 | 1,782 | 47,740 | 5,832 | 25,746 | 2,969 | 0 | 0 | 0 | 0 | 0 | 0 |
| TDA | 60,956 | 3,209 | 130,240 | 7,717 | 99,119 | 5,946 | 29,820 | 1,170 | 37,078 | 3,595 | 19,618 | 1,932 | 0 | 0 | 0 | 0 | 0 | 0 |
| JDA | 55,877 | 2,715 | 112,153 | 6,367 | 82,666 | 4,703 | 24,680 | 1,088 | 28,906 | 3,708 | 16,057 | 1,462 | 0 | 0 | 0 | 0 | 0 | 0 |
| MCN | 57,852 | 3,168 | 107,497 | 7,682 | 76,092 | 4,941 | 21,504 | 752 | 22,792 | 2,434 | 13,321 | 1,293 | 0 | 0 | 0 | 0 | 0 | 0 |
| IHR | 26,937 | 1,169 | 77,106 | 4,646 | 51,680 | 3,159 | 4,924 | 351 | 7,221 | 1,245 | 5,840 | 707 | 0 | 0 | 0 | 0 | 0 | 0 |
| LMN | 25,790 | 999 | 71,578 | 3,785 | 49,507 | 2,979 | 3,522 | 230 | 4,727 | 725 | 4,799 | 496 | 0 | 0 | 0 | 0 | 0 | 0 |
| LGS | 24,341 | 928 | 62,458 | 3,404 | 47,589 | 3,042 | 1,771 | 155 | 3,203 | 590 | 3,648 | 464 | 0 | 0 | 0 | 0 | 0 | 0 |
| LWG | 25,409 | 1,191 | 70,742 | 4,482 | 47,410 | 3,274 | 1,526 | 110 | 2,722 | 527 | 3,043 | 379 | 0 | 0 | 0 | 0 | 0 | 0 |
| PRD | 14,148 | 515 | 13,521 | 1,020 | 15,454 | 477 | 10,039 | 186 | 8,366 | 294 | 3,434 | 117 | 0 | 0 | 0 | 0 | 0 | 0 |
| RIS | 12,220 | 482 | 10,918 | 958 | 12,149 | 699 | 3,574 | 46 | 2,535 | 153 | 979 | 63 | 0 | 0 | 0 | 0 | 0 | 0 |
| RRH | 4,652 | 425 | 4,365 | 734 | 4,426 | 242 | 1,137 | 18 | 836 | 26 | 261 | 8 | 0 | 0 | 0 | 0 | 0 | 0 |
| WEL | 2,592 | 88 | 2,886 | 111 | 2,426 | 162 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| WFA | 31,940 | 1,089 | 90,506 | 665 | n/a | n/a | -- | -- | -- | -- | -- | -- | 0 | 0 | 0 | 0 | n/a | n/a |

| DAM | Coho | | | | | | Sockeye | | | Steelhead | | | |
|-----|-------|------|-------|------|------------|------|---------|--------|--------|-----------|--------|--------|-------|
| | 2005 | | 2004 | | 10-Yr Avg. | | 10-Yr | | | 10-Yr | | | Wild |
| | Adult | Jack | Adult | Jack | Adult | Jack | 2005 | 2004 | Avg. | 2005 | 2004 | Avg. | 2005 |
| BON | 0 | -1 | 0 | 0 | 0 | 0 | 24,400 | 72,700 | 25,404 | 8,457 | 15,776 | 11,051 | 2,852 |
| TDA | -1 | -1 | 0 | 0 | 0 | 0 | 18,107 | 55,311 | 18,407 | 3,525 | 5,478 | 3,609 | 1,371 |
| JDA | 5 | -12 | 0 | 0 | 0 | 0 | 15,711 | 45,083 | 15,055 | 3,047 | 5,367 | 5,386 | 1,068 |
| MCN | 0 | 0 | 0 | 0 | 0 | 0 | 10,530 | 27,867 | 8,348 | 2,588 | 3,384 | 2,760 | 830 |
| IHR | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 23 | 0 | 1,884 | 2,300 | 1,924 | 779 |
| LMN | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 7 | 0 | 1,522 | 2,007 | 1,896 | 561 |
| LGS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1,243 | 2,075 | 2,109 | 522 |
| LWG | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 5,049 | 7,816 | 6,304 | 1,610 |
| PRD | 0 | 0 | 0 | 0 | 0 | 0 | 3,282 | 10,171 | 2,882 | 73 | 310 | 51 | n/a |
| RIS | 2 | 0 | 0 | 0 | 0 | 0 | 467 | 1,667 | 515 | 121 | 316 | 58 | 109 |
| RRH | 0 | 0 | 0 | 0 | 0 | 0 | 151 | 834 | 244 | 379 | 431 | 88 | 369 |
| WEL | 0 | 0 | 0 | 0 | 0 | 0 | 23 | 297 | 74 | 68 | 107 | 17 | 58 |
| WFA | 0 | 0 | 0 | 0 | n/a | n/a | 0 | 0 | n/a | 14,538 | 36,760 | n/a | n/a |

WFA is through 6/20; RIS/RRH/WEL is through 6/22. LGR is missing 6/12; IHR missing 6/10 and 6/11.

IHR chinook jack were counted as coho jack for 5/23, 5/24 & 5/9, 6/9 - in our database

it has been added to the chinook jack count and removed from the coho jack count.

*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: 06/24/05

BON counts from January 1, 2005 to March 14, 2005 (our traditional counts begin March 15):

| Chinook Adult | Chinook Jack | Steelhead | Wild Steelhead |
|---------------|--------------|-----------|----------------|
| 15 | 0 | 256 | -74 |

