



Fish Passage Center

Weekly Report #03 - 29

October 17, 2003

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Summary of Events:

Water Supply: Water Year 2004 began on October 1st, 2003. In summary of Water Year 2003, precipitation throughout the Columbia Basin ranged between 70% and 96% of average at the sites listed in Table 1. During the first thirteen days of WY 2004, precipitation has varied between 8% and 145% of average at the listed sites.

Table 1. Summary WY 2003 precipitation and WY 2004 cumulative October precipitation with respect to average (1971-2000), at select locations within the Columbia and Snake River Basins.

| Location | Water Year 2003 Totals October 1, 2002 to September 30, 2003 | | Water Year 2004 Totals October 1, 2003 to October 13, 2003 | |
|--------------------------------|---|--------------|---|--------------|
| | Observed (inches) | % Average | Observed (inches) | % Average |
| Columbia Above Coulee | 20.53 | 80 | 0.59 | 75 |
| Snake River Above Ice Harbor | 16.04 | 89 | 0.17 | 34 |
| Columbia Above The Dalles | 19.98 | 85 | 0.46 | 67 |
| Kootenai | 19.34 | 74 | 0.66 | 86 |
| Clark Fork | 14.99 | 84 | 0.19 | 38 |
| Flathead | 17.49 | 74 | 0.29 | 41 |
| Pend Oreille/Spokane | 28.04 | 89 | 0.50 | 56 |
| Central Washington | 8.76 | 96 | 0.03 | 12 |
| Snake River Plain | 8.15 | 70 | 0.03 | 8 |
| Salmon/Boise/Payette | 19.00 | 94 | 0.09 | 17 |
| Clearwater | 30.02 | 96 | 0.48 | 53 |
| SW Washington Cascades/Cowlitz | 59.29 | 83 | 3.37 | 145 |
| Willamette Valley | 53.40 | 89 | 1.73 | 96 |

Libby Reservoir is currently at an elevation of 2432.9 feet, and has drafted 0.4 feet in the last week. Outflows over the past week have been 4.6 Kcfs.

Hungry Horse Reservoir is at an elevation of 3532.7 feet and has been drafted approximately 1.0 foot over the last week. Outflows continue to range between 2.2 and 2.3 Kcfs.

Albeni Falls has increased outflows to 17-18 Kcfs to draft to an elevation of 2055-2056 feet by the end of October. The Salmon Managers have recommended to TMT that Albeni Falls draft to 2051 feet by mid-November, but a final decision has not yet been made.

Dworshak Reservoir is currently at an elevation of 1516.7 feet, and has drafted 0.3 feet in the last week. Dworshak is currently at an outflow of 1.7 Kcfs.

Grand Coulee Reservoir ended October 16th at an elevation of 1287.6 feet. Outflows over the last week have ranged between a day average of 56.3 and 86.1 Kcfs.

Brownlee Reservoir was at an elevation of 2039.7 on October 16th, refilling 2.3 feet in the last week. Outflows at Brownlee have been fluctuating between 5.5 and 11.1 Kcfs over the week.

Smolt Monitoring: With three sampling sites operating until the end of October, there continue to be detections of subyearling chinook moving through the system, while very few other salmonids have been seen. At Lower Granite Dam the average daily index for subyearling chinook decreased from 440 last week to 260 per day this week, with a relatively large daily count of 728 on October 16. At Little Goose Dam there was a decrease, with an average index of 37 this week compared to 56 last week. In the Lower Columbia, at Bonneville Dam, the average daily index for subyearling chinook was at 70 this week compared to 47 last week.

Hatchery Releases - The preliminary total of juvenile salmonids released from Columbia River Basin hatcheries above Bonneville Dam for the 2003 migration season is an estimated 87.3 million. A few supplemental and planned releases of spring/summer chinook were completed this fall season and are primarily considered as 2004 migrants.

Adult Fish Passage - At Bonneville Dam, adult fall chinook passage decreased through the week with daily counts ranging between 1069 and 640. The cumulative count through October 16 was 602,255; this total is about 128% and 255% of the respective 2002 and 10-year average. Overall, 46,749 Jack fall chinook (Tule and Up-River Bright stocks) have been counted to date; this total was 118% and 134% of the respective 2002 and 10-year average counts for the 2003 season.

Upriver bright fall chinook counts past The Dalles Dam ranged from 1,088 to 688 for the week while upstream at McNary Dam, chinook counts ranged between 1001 and 517. The cumulative count at McNary Dam was 174,484 through October 16. At Priest Rapids Dam, adult fall chinook counts ranged between 204 and 84 with the cumulative total being 42,641 through October 16. At Ice Harbor Dam, the high daily count for the week was 151 with the cumulative count at 20,283 through October 16. Adult fall chinook counts at both Priest Rapids and Ice Harbor dams exceed the 2002 and 10-year averages for the 2003 season.

Numbers of steelhead at Bonneville Dam ranged between 370 and 700 for the week. The cumulative count through October 16 was 354,070 and compares to 474,742 in 2002 and 276,122 for the 10-year average. The percent passage of adult steelhead counted at Bonneville Dam and upstream at The Dalles Dam is now at 73.5%; the steelhead count at The Dalles Dam through October 16 was 260,211. At McNary Dam, daily counts of adult steelhead ranged from 750 to 1,400 with the cumulative total now at 213,165. Steelhead counts up the Mid-Columbia ranged from 17 to 50 per day at Priest Rapids Dam with steelhead passage into the Snake River ranging from 546 to 1368 per day (Ice Harbor counts). The cumulative count for Priest Rapids Dam was 17,039 through October 16 with Ice Harbor at 172,890 through the same date.

At Bonneville Dam, adult coho counts were over 1,000 per day for the week with the cumulative count through October 16 at 115,717. This total was 1.5-times greater than the 2002 count and double the 10-year average. About 34,104 of these fish have passed The Dalles Dam and will be destined for upstream sites in the Mid-Columbia area, the Yakama River basin, the Umatilla River basin and the Clearwater River basin. The majority of coho salmon returning to the Bonneville pool are destined for the Little White Salmon and Klickitat rivers.

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 |
| 10/03/03 | 68.1 | 0.0 | 68.9 | 0.0 | 68.7 | 0.0 | 67.0 | 0.0 | 65.8 | 0.0 | 68.5 | 1.7 | 66.6 | 1.1 |
| 10/04/03 | 44.4 | 0.0 | 46.6 | 0.0 | 47.8 | 0.0 | 49.0 | 0.0 | 50.3 | 0.0 | 55.5 | 1.8 | 55.2 | 1.1 |
| 10/05/03 | 48.9 | 0.0 | 51.4 | 0.0 | 47.4 | 0.0 | 47.9 | 0.0 | 47.8 | 0.0 | 54.0 | 1.8 | 51.7 | 1.0 |
| 10/06/03 | 84.4 | 0.0 | 80.5 | 0.0 | 79.9 | 0.0 | 80.2 | 0.0 | 79.1 | 0.0 | 79.6 | 1.7 | 76.1 | 1.0 |
| 10/07/03 | 63.9 | 0.0 | 65.7 | 0.0 | 65.4 | 0.0 | 67.5 | 0.0 | 65.8 | 0.0 | 73.6 | 1.8 | 73.9 | 0.5 |
| 10/08/03 | 56.8 | 0.0 | 65.6 | 0.0 | 66.6 | 0.0 | 70.0 | 0.0 | 70.5 | 0.0 | 87.8 | 1.6 | 85.2 | 0.0 |
| 10/09/03 | 99.1 | 0.0 | 90.8 | 0.0 | 86.3 | 0.1 | 83.5 | 0.0 | 80.4 | 0.0 | 85.0 | 1.2 | 83.6 | 0.6 |
| 10/10/03 | 62.7 | 0.0 | 65.4 | 0.0 | 69.0 | 0.0 | 70.4 | 0.0 | 66.9 | 0.0 | 80.6 | 1.3 | 79.9 | 1.0 |
| 10/11/03 | 59.9 | 0.0 | 60.9 | 0.0 | 59.1 | 0.0 | 63.7 | 0.0 | 63.3 | 0.0 | 68.8 | 1.1 | 68.1 | 1.0 |
| 10/12/03 | 56.3 | 0.0 | 55.7 | 0.0 | 52.8 | 0.0 | 53.2 | 0.0 | 54.4 | 0.0 | 59.0 | 1.0 | 57.6 | 0.9 |
| 10/13/03 | 86.1 | 0.0 | 82.8 | 0.0 | 80.7 | 0.0 | 82.1 | 0.0 | 80.3 | 0.0 | 81.0 | 1.1 | 82.4 | 0.4 |
| 10/14/03 | 75.3 | 0.0 | 79.6 | 0.0 | 80.0 | 0.0 | 81.3 | 0.0 | 81.2 | 0.0 | 79.3 | 1.3 | 74.2 | 0.0 |
| 10/15/03 | 72.9 | 0.0 | 72.8 | 0.0 | 73.3 | 0.0 | 74.7 | 0.0 | 75.6 | 0.0 | 92.4 | 1.1 | 94.2 | 0.0 |
| 10/16/03 | 68.8 | 0.0 | 67.5 | 0.0 | 66.2 | 0.0 | 67.9 | 0.0 | 67.8 | 0.0 | 81.2 | 0.8 | 83.0 | 0.5 |

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

| Date | Dworshak | | Hells Canyon | | Lower Granite | | Little Goose | | Lower Monumental | | Ice Harbor | |
|----------|----------|-------|--------------|---------|---------------|-------|--------------|-------|------------------|-------|------------|-------|
| | Flow | Spill | Inflow | Outflow | Flow | Spill | Flow | Spill | Flow | Spill | Flow | Spill |
| 10/03/03 | 1.7 | 0.0 | 9.7 | 12.0 | 17.2 | 0.0 | 17.0 | 0.0 | 16.6 | 0.0 | 13.8 | 0.0 |
| 10/04/03 | 1.7 | 0.0 | 9.3 | 10.4 | 18.6 | 0.0 | 17.9 | 0.0 | 17.7 | 0.0 | 19.4 | 0.0 |
| 10/05/03 | 1.7 | 0.0 | 9.7 | 10.1 | 15.5 | 0.0 | 14.5 | 0.0 | 15.4 | 0.0 | 12.5 | 0.0 |
| 10/06/03 | 1.7 | 0.0 | 10.4 | 12.5 | 15.5 | 0.0 | 15.5 | 0.0 | 15.5 | 0.0 | 15.1 | 0.0 |
| 10/07/03 | 1.7 | 0.0 | 9.4 | 8.9 | 17.3 | 0.0 | 15.8 | 0.0 | 17.0 | 0.0 | 15.5 | 0.0 |
| 10/08/03 | 1.7 | 0.0 | 9.7 | 8.6 | 15.3 | 0.0 | 16.1 | 0.0 | 16.1 | 0.0 | 15.3 | 0.0 |
| 10/09/03 | 1.7 | 0.0 | 9.7 | 11.0 | 16.2 | 3.5 | 14.6 | 0.0 | 15.4 | 0.0 | 13.6 | 0.0 |
| 10/10/03 | 1.7 | 0.0 | 9.2 | 9.4 | 16.9 | 2.7 | 16.7 | 0.0 | 17.7 | 0.0 | 16.7 | 0.0 |
| 10/11/03 | 1.7 | 0.0 | 10.8 | 9.0 | 14.7 | 0.0 | 15.5 | 0.0 | 16.9 | 0.0 | 16.8 | 0.0 |
| 10/12/03 | 1.7 | 0.0 | 9.7 | 9.0 | 14.3 | 0.0 | 14.0 | 0.0 | 14.7 | 0.0 | 13.3 | 0.0 |
| 10/13/03 | 1.7 | 0.0 | 9.7 | 8.6 | 15.0 | 0.0 | 14.5 | 0.0 | 14.5 | 0.0 | 13.2 | 0.0 |
| 10/14/03 | 1.7 | 0.0 | 10.3 | 8.6 | 14.8 | 0.0 | 14.6 | 0.0 | 14.7 | 0.0 | 12.7 | 0.0 |
| 10/15/03 | 1.7 | 0.0 | 10.2 | 8.5 | 16.8 | 0.0 | 15.4 | 0.0 | 16.2 | 0.0 | 15.1 | 0.0 |
| 10/16/03 | 1.7 | 0.0 | --- | --- | 14.9 | 0.0 | 15.5 | 0.0 | 16.3 | 0.0 | 15.4 | 0.0 |

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

| Date | McNary | | John Day | | The Dalles | | Bonneville | | | |
|----------|--------|-------|----------|-------|------------|-------|------------|-------|------|------|
| | Flow | Spill | Flow | Spill | Flow | Spill | Flow | Spill | PH1 | PH2 |
| 10/03/03 | 82.7 | 0.0 | 85.7 | 0.0 | 90.2 | 0.0 | 100.6 | 2.4 | 2.5 | 88.9 |
| 10/04/03 | 78.5 | 0.0 | 76.2 | 0.0 | 81.4 | 0.0 | 83.1 | 2.5 | 0.0 | 73.9 |
| 10/05/03 | 65.1 | 0.0 | 64.9 | 0.0 | 68.8 | 0.0 | 77.2 | 2.3 | 0.0 | 68.1 |
| 10/06/03 | 79.5 | 0.0 | 74.4 | 0.0 | 78.5 | 0.0 | 77.5 | 2.4 | 0.0 | 68.4 |
| 10/07/03 | 89.9 | 0.0 | 89.8 | 0.0 | 96.3 | 0.0 | 102.0 | 2.3 | 9.1 | 83.8 |
| 10/08/03 | 101.0 | 0.0 | 96.2 | 0.0 | 104.1 | 0.0 | 107.0 | 2.5 | 0.0 | 97.8 |
| 10/09/03 | 102.0 | 0.0 | 104.0 | 0.0 | 107.3 | 0.0 | 111.7 | 2.4 | 5.8 | 96.8 |
| 10/10/03 | 103.2 | 0.0 | 94.2 | 0.0 | 96.5 | 0.0 | 107.1 | 2.4 | 2.5 | 95.4 |
| 10/11/03 | 98.1 | 0.0 | 98.7 | 0.0 | 106.7 | 0.0 | 109.8 | 2.4 | 3.4 | 96.9 |
| 10/12/03 | 80.7 | 0.0 | 75.7 | 0.0 | 78.8 | 0.0 | 80.4 | 2.3 | 0.3 | 70.8 |
| 10/13/03 | 83.9 | 0.0 | 81.6 | 0.0 | 86.0 | 0.0 | 94.3 | 2.3 | 0.4 | 84.8 |
| 10/14/03 | 98.6 | 0.0 | 97.2 | 0.0 | 102.1 | 0.0 | 102.3 | 2.4 | 0.9 | 92.3 |
| 10/15/03 | 106.8 | 0.0 | 100.4 | 0.0 | 105.7 | 0.0 | 112.4 | 2.4 | 5.8 | 97.4 |
| 10/16/03 | 103.1 | 0.0 | 103.9 | 0.0 | 109.3 | 0.0 | 115.9 | 2.4 | 14.3 | 92.5 |

HATCHERY RELEASE LAST TWO WEEKS

Hatchery Release Summary

From: 10/3/03 to 10/16/03

| Agency | Hatchery | Species | Race | MigYr | NumRel | RelStart | RelEnd | RelSite | RelRiver |
|---|-------------------|---------|------|-------|----------------|----------|----------|-----------------------|-------------------|
| Idaho Dept. of Fish and Wildlife | Sawtooth Hatchery | SO | UN | 2003 | 15,000 | 10-06-03 | 10-08-03 | Pettit Lake | Salmon River (ID) |
| Idaho Dept. of Fish and Wildlife | Sawtooth Hatchery | SO | UN | 2004 | 2,000 | 10-06-03 | 10-08-03 | Alturas Lake | Salmon River (ID) |
| Idaho Dept. of Fish and Wildlife | Sawtooth Hatchery | SO | UN | 2004 | 60,000 | 10-06-03 | 10-08-03 | Redfish Lake | Salmon River (ID) |
| Idaho Dept. of Fish and Wildlife Total | | | | | 77,000 | | | | |
| U.S. Fish and Wildlife Service | Warm Springs NFH | CH1 | SP | 2004 | 45,500 | 10-08-03 | 11-13-03 | Warm Springs Hatchery | Deschutes River |
| U.S. Fish and Wildlife Service Total | | | | | 45,500 | | | | |
| Grand Total | | | | | 122,500 | | | | |

HATCHERY RELEASE NEXT TWO WEEKS

Hatchery Release Summary

From: 10/17/03 to 10/30/03

| Agency | Hatchery | Species | Race | MigYr | NumRel | RelStart | RelEnd | RelSite | RelRiver |
|--|-------------------|---------|------|-------|----------------|----------|----------|-----------------------|-----------------|
| U.S. Fish and Wildlife Service | Warm Springs NFH | CH1 | SP | 2004 | 45,500 | 10-08-03 | 11-13-03 | Warm Springs Hatchery | Deschutes River |
| U.S. Fish and Wildlife Service Total | | | | | 45,500 | | | | |
| Washington Dept. of Fish and Wildlife | Eastbank Hatchery | SO | UN | 2004 | 110,000 | 10-27-03 | 10-31-03 | Lake Wenatchee | Wenatchee River |
| Washington Dept. of Fish and Wildlife Total | | | | | 110,000 | | | | |
| Grand Total | | | | | 155,500 | | | | |

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

Total Dissolved Gas Saturation Data at Upper Columbia River Sites

| Date | <u>Hungry H. Dnst</u> | | | <u>Boundary</u> | | | <u>Grand Coulee</u> | | | <u>Grand C. Tlwr</u> | | | <u>Chief Joseph</u> | | | # | | | | |
|-------|-----------------------|-------------|-------------|-----------------|-------------|-------------|---------------------|-------------|-------------|----------------------|-------------|-------------|---------------------|-------------|-------------|----|------------|------------|------------|---|
| | <u>24 h</u> | <u>12 h</u> | <u>High</u> | <u>24 h</u> | <u>12 h</u> | <u>High</u> | <u>24 h</u> | <u>12 h</u> | <u>High</u> | <u>24 h</u> | <u>12 h</u> | <u>High</u> | <u>24 h</u> | <u>12 h</u> | <u>High</u> | | | | | |
| | <u>Avg</u> | <u>Avg</u> | | <u>Avg</u> | <u>Avg</u> | | <u>Avg</u> | <u>Avg</u> | | <u>Avg</u> | <u>Avg</u> | | <u>Avg</u> | <u>Avg</u> | | | <u>Avg</u> | <u>Avg</u> | <u>Avg</u> | |
| 10/3 | --- | --- | --- | 0 | 102 | 103 | 104 | 24 | 101 | 101 | 102 | 24 | 100 | 100 | 103 | 24 | --- | --- | --- | 0 |
| 10/4 | --- | --- | --- | 0 | 101 | 101 | 102 | 24 | 101 | 102 | 102 | 24 | 100 | 101 | 106 | 24 | --- | --- | --- | 0 |
| 10/5 | --- | --- | --- | 0 | 100 | 100 | 101 | 24 | 101 | 102 | 103 | 24 | 100 | 101 | 105 | 24 | --- | --- | --- | 0 |
| 10/6 | --- | --- | --- | 0 | 101 | 102 | 105 | 24 | 102 | 102 | 103 | 24 | 100 | 100 | 102 | 24 | --- | --- | --- | 0 |
| 10/7 | --- | --- | --- | 0 | 101 | 101 | 104 | 24 | 102 | 102 | 102 | 24 | 100 | 100 | 101 | 24 | --- | --- | --- | 0 |
| 10/8 | --- | --- | --- | 0 | 100 | 100 | 100 | 24 | 101 | 102 | 102 | 24 | 100 | 100 | 101 | 24 | --- | --- | --- | 0 |
| 10/9 | --- | --- | --- | 0 | 100 | 100 | 104 | 24 | 100 | 101 | 101 | 24 | 99 | 99 | 100 | 24 | --- | --- | --- | 0 |
| 10/10 | --- | --- | --- | 0 | 99 | 99 | 100 | 24 | 99 | 100 | 100 | 24 | 98 | 99 | 100 | 24 | --- | --- | --- | 0 |
| 10/11 | --- | --- | --- | 0 | 99 | 100 | 100 | 24 | 100 | 100 | 100 | 24 | 99 | 100 | 102 | 24 | --- | --- | --- | 0 |
| 10/12 | --- | --- | --- | 0 | 98 | 99 | 99 | 24 | 99 | 99 | 100 | 24 | 99 | 99 | 100 | 24 | --- | --- | --- | 0 |
| 10/13 | --- | --- | --- | 0 | 98 | 98 | 99 | 24 | 98 | 98 | 99 | 24 | 98 | 98 | 101 | 24 | --- | --- | --- | 0 |
| 10/14 | --- | --- | --- | 0 | 98 | 99 | 99 | 24 | 98 | 98 | 99 | 24 | 98 | 98 | 101 | 25 | --- | --- | --- | 0 |
| 10/15 | --- | --- | --- | 0 | 97 | 98 | 101 | 24 | 99 | 99 | 99 | 24 | 98 | 99 | 101 | 24 | --- | --- | --- | 0 |
| 10/16 | --- | --- | --- | 0 | 98 | 98 | 101 | 24 | 99 | 99 | 99 | 24 | 98 | 99 | 101 | 24 | --- | --- | --- | 0 |

Total Dissolved Gas Saturation Data at Mid Columbia River Sites

| Date | <u>Chief J. Dnst</u> | | | <u>Wells</u> | | | <u>Wells Dwnstrm</u> | | | <u>Rocky Reach</u> | | | <u>Rocky R. Tlwr</u> | | | # | | | | |
|-------|----------------------|-------------|-------------|--------------|-------------|-------------|----------------------|-------------|-------------|--------------------|-------------|-------------|----------------------|-------------|-------------|---|------------|------------|-----|---|
| | <u>24 h</u> | <u>12 h</u> | <u>High</u> | <u>24 h</u> | <u>12 h</u> | <u>High</u> | <u>24 h</u> | <u>12 h</u> | <u>High</u> | <u>24 h</u> | <u>12 h</u> | <u>High</u> | <u>24 h</u> | <u>12 h</u> | <u>High</u> | | | | | |
| | <u>Avg</u> | <u>Avg</u> | | <u>Avg</u> | <u>Avg</u> | | <u>Avg</u> | <u>Avg</u> | | <u>Avg</u> | <u>Avg</u> | | <u>Avg</u> | <u>Avg</u> | | | <u>Avg</u> | <u>Avg</u> | | |
| 10/3 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/4 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/5 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/6 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/7 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/8 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/9 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/10 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/11 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/12 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/13 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/14 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/15 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/16 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |

Total Dissolved Gas Saturation at Mid Columbia River Sites

| Date | <u>Rock Island</u> | | | <u>Rock I. Tlwr</u> | | | <u>Wanapum</u> | | | <u>Wanapum Tlwr</u> | | | <u>Priest Rapids</u> | | | # | | | | |
|-------|--------------------|-------------|-------------|---------------------|-------------|-------------|----------------|-------------|-------------|---------------------|-------------|-------------|----------------------|-------------|-------------|---|------------|------------|-----|---|
| | <u>24 h</u> | <u>12 h</u> | <u>High</u> | <u>24 h</u> | <u>12 h</u> | <u>High</u> | <u>24 h</u> | <u>12 h</u> | <u>High</u> | <u>24 h</u> | <u>12 h</u> | <u>High</u> | <u>24 h</u> | <u>12 h</u> | <u>High</u> | | | | | |
| | <u>Avg</u> | <u>Avg</u> | | <u>Avg</u> | <u>Avg</u> | | <u>Avg</u> | <u>Avg</u> | | <u>Avg</u> | <u>Avg</u> | | <u>Avg</u> | <u>Avg</u> | | | <u>Avg</u> | <u>Avg</u> | | |
| 10/3 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/4 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/5 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/6 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/7 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/8 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/9 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/10 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/11 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/12 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/13 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/14 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/15 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/16 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |

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

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

| Date | 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 | | | 24 h | 12 h | |
| | Avg | Avg | High | | Avg | Avg | High | | Avg | Avg | High | | Avg | Avg | High | | Avg | Avg | High | | Avg | Avg | High |
| 10/3 | --- | --- | --- | 0 | 102 | 103 | 103 | 24 | 104 | 105 | 106 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 | | | |
| 10/4 | --- | --- | --- | 0 | 102 | 103 | 104 | 24 | 104 | 105 | 106 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 | | | |
| 10/5 | --- | --- | --- | 0 | 102 | 102 | 103 | 24 | 104 | 105 | 106 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 | | | |
| 10/6 | --- | --- | --- | 0 | 102 | 103 | 104 | 24 | 104 | 105 | 107 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 | | | |
| 10/7 | --- | --- | --- | 0 | 101 | 102 | 102 | 21 | 104 | 105 | 106 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 | | | |
| 10/8 | --- | --- | --- | 0 | 100 | 101 | 102 | 24 | 104 | 105 | 107 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 | | | |
| 10/9 | --- | --- | --- | 0 | 99 | 100 | 100 | 24 | 103 | 105 | 106 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 | | | |
| 10/10 | --- | --- | --- | 0 | 99 | 100 | 101 | 24 | 105 | 105 | 106 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 | | | |
| 10/11 | --- | --- | --- | 0 | 99 | 99 | 100 | 20 | 105 | 105 | 106 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 | | | |
| 10/12 | --- | --- | --- | 0 | 99 | 99 | 100 | 24 | 105 | 105 | 106 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 | | | |
| 10/13 | --- | --- | --- | 0 | 99 | 100 | 101 | 24 | 103 | 104 | 104 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 | | | |
| 10/14 | --- | --- | --- | 0 | 100 | 101 | 101 | 25 | 104 | 104 | 104 | 25 | --- | --- | --- | 0 | --- | --- | --- | 0 | | | |
| 10/15 | --- | --- | --- | 0 | 99 | 99 | 100 | 24 | 105 | 105 | 106 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 | | | |
| 10/16 | --- | --- | --- | 0 | 98 | 98 | 98 | 24 | 105 | 105 | 105 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 | | | |

Total Dissolved Gas Saturation Data at Snake River Sites

| Date | 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 | | | 24 h | 12 h | |
| | Avg | Avg | High | | Avg | Avg | High | | Avg | Avg | High | | Avg | Avg | High | | Avg | Avg | High | | Avg | Avg | High |
| 10/3 | --- | --- | --- | 0 | 103 | 104 | 106 | 24 | 99 | 99 | 100 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 | | | |
| 10/4 | --- | --- | --- | 0 | 102 | 103 | 103 | 24 | 99 | 100 | 100 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 | | | |
| 10/5 | --- | --- | --- | 0 | 100 | 100 | 102 | 24 | 98 | 99 | 99 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 | | | |
| 10/6 | --- | --- | --- | 0 | 101 | 101 | 102 | 24 | 98 | 98 | 98 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 | | | |
| 10/7 | --- | --- | --- | 0 | 98 | 98 | 99 | 24 | 97 | 97 | 98 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 | | | |
| 10/8 | --- | --- | --- | 0 | 98 | 98 | 99 | 24 | 97 | 97 | 97 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 | | | |
| 10/9 | --- | --- | --- | 0 | 96 | 96 | 97 | 24 | 105 | 111 | 115 | 21 | --- | --- | --- | 0 | --- | --- | --- | 0 | | | |
| 10/10 | --- | --- | --- | 0 | 96 | 96 | 96 | 24 | 104 | 111 | 120 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 | | | |
| 10/11 | --- | --- | --- | 0 | 96 | 96 | 96 | 24 | 96 | 96 | 97 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 | | | |
| 10/12 | --- | --- | --- | 0 | 95 | 95 | 96 | 9 | 95 | 96 | 97 | 20 | --- | --- | --- | 0 | --- | --- | --- | 0 | | | |
| 10/13 | --- | --- | --- | 0 | 95 | 95 | 95 | 3 | 95 | 95 | 96 | 6 | --- | --- | --- | 0 | --- | --- | --- | 0 | | | |
| 10/14 | --- | --- | --- | 0 | 95 | 95 | 95 | 11 | 95 | 96 | 96 | 22 | --- | --- | --- | 0 | --- | --- | --- | 0 | | | |
| 10/15 | --- | --- | --- | 0 | 95 | 95 | 96 | 12 | 95 | 95 | 96 | 17 | --- | --- | --- | 0 | --- | --- | --- | 0 | | | |
| 10/16 | --- | --- | --- | 0 | 95 | 95 | 95 | 8 | 96 | 96 | 97 | 11 | --- | --- | --- | 0 | --- | --- | --- | 0 | | | |

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

| Date | 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 | | | 24 h | 12 h | |
| | Avg | Avg | High | | Avg | Avg | High | | Avg | Avg | High | | Avg | Avg | High | | Avg | Avg | High | | Avg | Avg | High |
| 10/3 | --- | --- | --- | 0 | --- | --- | --- | 0 | 97 | 98 | 99 | 24 | 99 | 100 | 101 | 24 | 101 | 103 | 105 | 24 | | | |
| 10/4 | --- | --- | --- | 0 | --- | --- | --- | 0 | 98 | 98 | 99 | 24 | 99 | 99 | 100 | 24 | 101 | 103 | 104 | 24 | | | |
| 10/5 | --- | --- | --- | 0 | --- | --- | --- | 0 | 97 | 98 | 99 | 24 | 99 | 99 | 100 | 24 | 101 | 102 | 103 | 24 | | | |
| 10/6 | --- | --- | --- | 0 | --- | --- | --- | 0 | 98 | 98 | 99 | 24 | 99 | 100 | 101 | 24 | 102 | 104 | 106 | 24 | | | |
| 10/7 | --- | --- | --- | 0 | --- | --- | --- | 0 | 97 | 97 | 99 | 24 | 99 | 99 | 100 | 24 | 101 | 102 | 104 | 24 | | | |
| 10/8 | --- | --- | --- | 0 | --- | --- | --- | 0 | 97 | 97 | 98 | 23 | 99 | 100 | 100 | 23 | 101 | 101 | 102 | 24 | | | |
| 10/9 | --- | --- | --- | 0 | --- | --- | --- | 0 | 96 | 96 | 97 | 24 | 99 | 100 | 101 | 24 | 99 | 99 | 100 | 13 | | | |
| 10/10 | --- | --- | --- | 0 | --- | --- | --- | 0 | 96 | 96 | 96 | 24 | 98 | 99 | 100 | 24 | 98 | 99 | 99 | 24 | | | |
| 10/11 | --- | --- | --- | 0 | --- | --- | --- | 0 | 96 | 96 | 97 | 24 | 98 | 98 | 100 | 24 | 98 | 98 | 99 | 24 | | | |
| 10/12 | --- | --- | --- | 0 | --- | --- | --- | 0 | 96 | 96 | 96 | 24 | 97 | 98 | 99 | 24 | 97 | 97 | 97 | 24 | | | |
| 10/13 | --- | --- | --- | 0 | --- | --- | --- | 0 | 96 | 96 | 96 | 21 | 97 | 98 | 98 | 24 | 97 | 99 | 99 | 24 | | | |
| 10/14 | --- | --- | --- | 0 | --- | --- | --- | 0 | 95 | 96 | 96 | 19 | 98 | 98 | 99 | 25 | 97 | 98 | 98 | 25 | | | |
| 10/15 | --- | --- | --- | 0 | --- | --- | --- | 0 | 96 | 96 | 96 | 24 | 98 | 98 | 99 | 24 | 98 | 98 | 98 | 24 | | | |
| 10/16 | --- | --- | --- | 0 | --- | --- | --- | 0 | 96 | 96 | 96 | 24 | 98 | 98 | 99 | 24 | 98 | 98 | 98 | 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 TIwr</u> | | | <u>John Day</u> | | | <u>John Day TIwr</u> | | | <u>The Dalles</u> | | | # | | | | |
|-------|--------------------|-------------|------|--------------------|-------------|-----|-----------------|------------|-----|----------------------|------------|----|-------------------|------------|------|---|-----|-----|-----|---|
| | <u>24 h</u> | <u>12 h</u> | | <u>24 h</u> | <u>12 h</u> | | <u>24h</u> | <u>12h</u> | | <u>24h</u> | <u>12h</u> | | <u>24h</u> | <u>12h</u> | | | | | | |
| | Avg | Avg | High | hr | Avg | Avg | High | hr | Avg | Avg | High | hr | Avg | Avg | High | | hr | | | |
| 10/3 | 102 | 103 | 104 | 24 | 101 | 101 | 101 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/4 | 102 | 103 | 104 | 24 | 101 | 101 | 101 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/5 | 101 | 102 | 102 | 24 | 100 | 101 | 101 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/6 | 103 | 104 | 107 | 24 | 101 | 101 | 102 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/7 | 101 | 101 | 101 | 24 | 100 | 100 | 101 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/8 | 101 | 101 | 101 | 24 | 100 | 101 | 101 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/9 | 100 | 100 | 100 | 24 | 99 | 99 | 100 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/10 | 98 | 99 | 99 | 24 | 98 | 98 | 98 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/11 | 99 | 99 | 99 | 24 | 98 | 98 | 99 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/12 | 98 | 98 | 98 | 24 | 97 | 97 | 98 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/13 | 97 | 97 | 98 | 24 | 97 | 97 | 98 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/14 | 97 | 98 | 98 | 25 | 97 | 97 | 97 | 25 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/15 | 98 | 98 | 99 | 24 | 98 | 98 | 98 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/16 | 98 | 98 | 98 | 24 | 98 | 98 | 99 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |

Total Dissolved Gas Saturation Data at Lower Columbia River Sites

| Date | <u>The Dalles Dnst</u> | | | <u>Bonneville</u> | | | <u>Warrendale</u> | | | <u>CamasWashugal</u> | | | # | | | |
|-------|------------------------|-------------|------|-------------------|-------------|-----|-------------------|------------|-----|----------------------|------------|----|-----|-----|-----|------|
| | <u>24 h</u> | <u>12 h</u> | | <u>24 h</u> | <u>12 h</u> | | <u>24h</u> | <u>12h</u> | | <u>24h</u> | <u>12h</u> | | | | | |
| | Avg | Avg | High | hr | Avg | Avg | High | hr | Avg | Avg | High | hr | | Avg | Avg | High |
| 10/3 | --- | --- | --- | 0 | 100 | 100 | 101 | 23 | 101 | 101 | 102 | 23 | --- | --- | --- | 0 |
| 10/4 | --- | --- | --- | 0 | 100 | 100 | 101 | 23 | 101 | 101 | 101 | 23 | --- | --- | --- | 0 |
| 10/5 | --- | --- | --- | 0 | 99 | 100 | 100 | 23 | 100 | 100 | 101 | 23 | --- | --- | --- | 0 |
| 10/6 | --- | --- | --- | 0 | 100 | 100 | 100 | 23 | 101 | 102 | 103 | 23 | --- | --- | --- | 0 |
| 10/7 | --- | --- | --- | 0 | 100 | 100 | 100 | 23 | 101 | 101 | 102 | 23 | --- | --- | --- | 0 |
| 10/8 | --- | --- | --- | 0 | 100 | 100 | 100 | 23 | 100 | 100 | 101 | 23 | --- | --- | --- | 0 |
| 10/9 | --- | --- | --- | 0 | 99 | 99 | 99 | 23 | 100 | 100 | 100 | 23 | --- | --- | --- | 0 |
| 10/10 | --- | --- | --- | 0 | 99 | 99 | 99 | 23 | 99 | 100 | 100 | 23 | --- | --- | --- | 0 |
| 10/11 | --- | --- | --- | 0 | 99 | 99 | 99 | 24 | 100 | 100 | 100 | 24 | --- | --- | --- | 0 |
| 10/12 | --- | --- | --- | 0 | 98 | 98 | 99 | 23 | 99 | 99 | 99 | 23 | --- | --- | --- | 0 |
| 10/13 | --- | --- | --- | 0 | 98 | 99 | 99 | 23 | 99 | 100 | 101 | 23 | --- | --- | --- | 0 |
| 10/14 | --- | --- | --- | 0 | 99 | 99 | 99 | 23 | 99 | 100 | 100 | 23 | --- | --- | --- | 0 |
| 10/15 | --- | --- | --- | 0 | 99 | 100 | 100 | 23 | 100 | 100 | 102 | 23 | --- | --- | --- | 0 |
| 10/16 | --- | --- | --- | 0 | 99 | 99 | 100 | 23 | 100 | 100 | 101 | 23 | --- | --- | --- | 0 |

Two-Week Summary of Passage Indices

| | 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) |
| 10/03/2003 | --- | --- | --- | --- | 0 | 1 | --- | --- | --- | --- | 0 |
| 10/04/2003 | --- | --- | --- | --- | 0 | 2 | --- | --- | --- | --- | 0 |
| 10/05/2003 | --- | --- | --- | --- | 0 | 0 | --- | --- | --- | --- | 0 |
| 10/06/2003 | --- | --- | --- | --- | 2 | 0 | --- | --- | --- | --- | 0 |
| 10/07/2003 | --- | --- | --- | --- | 2 | 1 | --- | --- | --- | --- | 0 |
| 10/08/2003 | --- | --- | --- | --- | 1 | 0 | --- | --- | --- | --- | 0 |
| 10/09/2003 | --- | --- | --- | --- | 1 | 0 | --- | --- | --- | --- | 0 |
| 10/10/2003 | --- | --- | --- | --- | 0 | 0 | --- | --- | --- | --- | 0 |
| 10/11/2003 | --- | --- | --- | --- | 0 | 0 | --- | --- | --- | --- | 0 |
| 10/12/2003 | --- | --- | --- | --- | 0 | 0 | --- | --- | --- | --- | 0 |
| 10/13/2003 | --- | --- | --- | --- | 0 | 0 | --- | --- | --- | --- | 0 |
| 10/14/2003 | --- | --- | --- | --- | 1 | 0 | --- | --- | --- | --- | 0 |
| 10/15/2003 | --- | --- | --- | --- | 1 | 0 | --- | --- | --- | --- | 0 |
| 10/16/2003 | --- | --- | --- | --- | 0 | 0 | --- | --- | --- | --- | 0 |
| 10/17/2003 | --- | --- | --- | --- | 3 | 0 | --- | --- | --- | --- | 0 |
| Total: | 0 | 0 | 0 | 0 | 11 | 4 | 0 | 0 | 0 | 0 | 0 |
| # Days: | 0 | 0 | 0 | 0 | 15 | 15 | 0 | 0 | 0 | 0 | 15 |
| Average: | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| YTD | 32,064 | 34,028 | 11,123 | 2,417 | 3,599,244 | 2,483,149 | 785,335 | 15,355 | 1,624,087 | 2,074,671 | 4,043,776 |

| | 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) |
| 10/03/2003 | --- | --- | --- | --- | 475 | 64 | --- | --- | --- | --- | 100 |
| 10/04/2003 | --- | --- | --- | --- | 379 | 43 | --- | --- | --- | --- | 41 |
| 10/05/2003 | --- | --- | --- | --- | 457 | 45 | --- | --- | --- | --- | 0 |
| 10/06/2003 | --- | --- | --- | --- | 438 | 56 | --- | --- | --- | --- | 21 |
| 10/07/2003 | --- | --- | --- | --- | 434 | 66 | --- | --- | --- | --- | 41 |
| 10/08/2003 | --- | --- | --- | --- | 524 | 83 | --- | --- | --- | --- | 34 |
| 10/09/2003 | --- | --- | --- | --- | 345 | 33 | --- | --- | --- | --- | 92 |
| 10/10/2003 | --- | --- | --- | --- | 282 | 12 | --- | --- | --- | --- | 104 |
| 10/11/2003 | --- | --- | --- | --- | 205 | 24 | --- | --- | --- | --- | 41 |
| 10/12/2003 | --- | --- | --- | --- | 70 | 12 | --- | --- | --- | --- | 59 |
| 10/13/2003 | --- | --- | --- | --- | 349 | 23 | --- | --- | --- | --- | 47 |
| 10/14/2003 | --- | --- | --- | --- | 369 | 41 | --- | --- | --- | --- | 98 |
| 10/15/2003 | --- | --- | --- | --- | 303 | 71 | --- | --- | --- | --- | 105 |
| 10/16/2003 | --- | --- | --- | --- | 728 | 76 | --- | --- | --- | --- | 37 |
| 10/17/2003 | --- | --- | --- | --- | 520 | 91 | --- | --- | --- | --- | 123 |
| Total: | 0 | 0 | 0 | 0 | 5,878 | 740 | 0 | 0 | 0 | 0 | 943 |
| # Days: | 0 | 0 | 0 | 0 | 15 | 15 | 0 | 0 | 0 | 0 | 15 |
| Average: | 0 | 0 | 0 | 0 | 392 | 49 | 0 | 0 | 0 | 0 | 63 |
| YTD | 1 | 118 | 74 | 355 | 1,408,152 | 684,832 | 341,254 | 28,113 | 7,682,087 | 2,713,873 | 7,902,384 |

* 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.

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) |
| 10/03/2003 | --- | --- | --- | --- | 2 | 0 | --- | --- | --- | --- | 0 |
| 10/04/2003 | --- | --- | --- | --- | 0 | 0 | --- | --- | --- | --- | 0 |
| 10/05/2003 | --- | --- | --- | --- | 1 | 1 | --- | --- | --- | --- | 10 |
| 10/06/2003 | --- | --- | --- | --- | 3 | 0 | --- | --- | --- | --- | 0 |
| 10/07/2003 | --- | --- | --- | --- | 0 | 0 | --- | --- | --- | --- | 0 |
| 10/08/2003 | --- | --- | --- | --- | 1 | 0 | --- | --- | --- | --- | 0 |
| 10/09/2003 | --- | --- | --- | --- | 0 | 0 | --- | --- | --- | --- | 0 |
| 10/10/2003 | --- | --- | --- | --- | 0 | 0 | --- | --- | --- | --- | 0 |
| 10/11/2003 | --- | --- | --- | --- | 0 | 0 | --- | --- | --- | --- | 0 |
| 10/12/2003 | --- | --- | --- | --- | 1 | 0 | --- | --- | --- | --- | 0 |
| 10/13/2003 | --- | --- | --- | --- | 0 | 0 | --- | --- | --- | --- | 0 |
| 10/14/2003 | --- | --- | --- | --- | 1 | 0 | --- | --- | --- | --- | 0 |
| 10/15/2003 | --- | --- | --- | --- | 0 | 0 | --- | --- | --- | --- | 0 |
| 10/16/2003 | --- | --- | --- | --- | 0 | 0 | --- | --- | --- | --- | 0 |
| 10/17/2003 | --- | --- | --- | --- | 0 | 0 | --- | --- | --- | --- | 0 |
| Total: | 0 | 0 | 0 | 0 | 9 | 1 | 0 | 0 | 0 | 0 | 10 |
| # Days: | 0 | 0 | 0 | 0 | 15 | 15 | 0 | 0 | 0 | 0 | 15 |
| Average: | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| YTD | 0 | 0 | 0 | 17 | 132,918 | 116,667 | 37,604 | 41,690 | 113,584 | 258,277 | 2,116,469 |

| | 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) |
| 10/03/2003 | --- | --- | --- | --- | 3 | 1 | --- | --- | --- | --- | 0 |
| 10/04/2003 | --- | --- | --- | --- | 5 | 0 | --- | --- | --- | --- | 0 |
| 10/05/2003 | --- | --- | --- | --- | 2 | 1 | --- | --- | --- | --- | 0 |
| 10/06/2003 | --- | --- | --- | --- | 2 | 1 | --- | --- | --- | --- | 0 |
| 10/07/2003 | --- | --- | --- | --- | 2 | 3 | --- | --- | --- | --- | 0 |
| 10/08/2003 | --- | --- | --- | --- | 3 | 0 | --- | --- | --- | --- | 0 |
| 10/09/2003 | --- | --- | --- | --- | 1 | 1 | --- | --- | --- | --- | 0 |
| 10/10/2003 | --- | --- | --- | --- | 0 | 1 | --- | --- | --- | --- | 0 |
| 10/11/2003 | --- | --- | --- | --- | 4 | 2 | --- | --- | --- | --- | 0 |
| 10/12/2003 | --- | --- | --- | --- | 1 | 0 | --- | --- | --- | --- | 0 |
| 10/13/2003 | --- | --- | --- | --- | 4 | 0 | --- | --- | --- | --- | 0 |
| 10/14/2003 | --- | --- | --- | --- | 1 | 0 | --- | --- | --- | --- | 0 |
| 10/15/2003 | --- | --- | --- | --- | 2 | 1 | --- | --- | --- | --- | 5 |
| 10/16/2003 | --- | --- | --- | --- | 3 | 0 | --- | --- | --- | --- | 0 |
| 10/17/2003 | --- | --- | --- | --- | 10 | 1 | --- | --- | --- | --- | 0 |
| Total: | 0 | 0 | 0 | 0 | 43 | 12 | 0 | 0 | 0 | 0 | 5 |
| # Days: | 0 | 0 | 0 | 0 | 15 | 15 | 0 | 0 | 0 | 0 | 15 |
| Average: | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 0 |
| YTD | 2,347 | 48,404 | 2,521 | 5,601 | 3,355,812 | 2,583,400 | 1,865,478 | 15,507 | 245,523 | 553,522 | 1,635,168 |

* See sampling comments

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

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) |
| 10/03/2003 | --- | --- | --- | --- | 0 | 0 | --- | --- | --- | --- | 0 |
| 10/04/2003 | --- | --- | --- | --- | 0 | 0 | --- | --- | --- | --- | 0 |
| 10/05/2003 | --- | --- | --- | --- | 0 | 0 | --- | --- | --- | --- | 0 |
| 10/06/2003 | --- | --- | --- | --- | 0 | 0 | --- | --- | --- | --- | 0 |
| 10/07/2003 | --- | --- | --- | --- | 0 | 0 | --- | --- | --- | --- | 0 |
| 10/08/2003 | --- | --- | --- | --- | 0 | 0 | --- | --- | --- | --- | 0 |
| 10/09/2003 | --- | --- | --- | --- | 0 | 0 | --- | --- | --- | --- | 0 |
| 10/10/2003 | --- | --- | --- | --- | 0 | 0 | --- | --- | --- | --- | 0 |
| 10/11/2003 | --- | --- | --- | --- | 0 | 0 | --- | --- | --- | --- | 0 |
| 10/12/2003 | --- | --- | --- | --- | 0 | 1 | --- | --- | --- | --- | 0 |
| 10/13/2003 | --- | --- | --- | --- | 1 | 0 | --- | --- | --- | --- | 0 |
| 10/14/2003 | --- | --- | --- | --- | 1 | 0 | --- | --- | --- | --- | 0 |
| 10/15/2003 | --- | --- | --- | --- | 0 | 0 | --- | --- | --- | --- | 0 |
| 10/16/2003 | --- | --- | --- | --- | 0 | 0 | --- | --- | --- | --- | 0 |
| 10/17/2003 | --- | --- | --- | --- | 0 | 0 | --- | --- | --- | --- | 0 |
| Total: | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 |
| # Days: | 0 | 0 | 0 | 0 | 15 | 15 | 0 | 0 | 0 | 0 | 15 |
| Average: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| YTD | 1 | 0 | 0 | 11 | 16,390 | 8,129 | 4,545 | 10,312 | 841,734 | 726,163 | 1,261,373 |

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

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
 $\text{Passage Index} = \text{Collection Counts} / \{ \text{Powerhouse 2 Flow} / (\text{Powerhouse 1 \& 2 Flow} + \text{Spill}) \}$
- BO1 (Index) = Bonneville Dam First Powerhouse Bypass Collection System : Passage Index Counts
 $\text{Passage Index} = \text{Collection Counts} / \{ \text{Powerhouse 1 Flow} / (\text{Powerhouse 1 \& 2 Flow} + \text{Spill}) \}$

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.

Cumulative Adult Passage at Mainstem Dams Through: 10/16

| DAM | Spring Chinook | | | | | | Summer Chinook | | | | | | Fall Chinook | | | | | |
|-----|----------------|--------|---------|-------|------------|-------|----------------|--------|---------|-------|------------|-------|--------------|--------|---------|--------|------------|--------|
| | 2003 | | 2002 | | 10-Yr Avg. | | 2003 | | 2002 | | 10-Yr Avg. | | 2003 | | 2002 | | 10-Yr Avg. | |
| | Adult | Jack | Adult | Jack | Adult | Jack | Adult | Jack | Adult | Jack | Adult | Jack | Adult | Jack | Adult | Jack | Adult | Jack |
| BON | 192,010 | 14,258 | 268,813 | 6,477 | 122,177 | 6,086 | 114,808 | 13,358 | 127,436 | 7,952 | 38,022 | 5,207 | 602,255 | 46,749 | 468,981 | 39,494 | 235,856 | 34,835 |
| TDA | 131,207 | 11,522 | 181,176 | 3,870 | 80,975 | 4,136 | 101,490 | 10,441 | 113,069 | 5,743 | 32,585 | 3,775 | 306,900 | 38,626 | 242,505 | 32,574 | 127,915 | 24,136 |
| JDA | 101,436 | 10,206 | 139,887 | 2,403 | 67,822 | 3,122 | 95,542 | 10,073 | 105,354 | 5,615 | 30,300 | 3,298 | 212,069 | 32,961 | 162,672 | 28,727 | 94,992 | 19,366 |
| MCN | 95,550 | 11,123 | 129,357 | 3,872 | 62,536 | 3,162 | 93,844 | 11,104 | 109,937 | 6,810 | 31,244 | 3,358 | 174,484 | 28,655 | 139,013 | 24,530 | 79,419 | 17,249 |
| IHR | 78,170 | 8,020 | 85,207 | 1,826 | 38,964 | 1,925 | 20,742 | 4,602 | 26,607 | 2,437 | 7,616 | 1,067 | 20,283 | 9,988 | 14,997 | 5,927 | 5,786 | 3,628 |
| LMN | 70,603 | 7,344 | 76,304 | 1,537 | 38,073 | 1,899 | 18,718 | 3,589 | 23,744 | 1,710 | 7,642 | 945 | 13,085 | 8,274 | 14,951 | 5,734 | 5,193 | 3,295 |
| LGS | 69,017 | 7,079 | 77,232 | 1,815 | 37,097 | 2,034 | 14,340 | 3,537 | 20,854 | 2,254 | 6,945 | 1,196 | 13,401 | 5,926 | 12,617 | 3,847 | 3,821 | 2,182 |
| LWG | 70,609 | 8,295 | 75,025 | 2,089 | 35,689 | 2,016 | 16,422 | 4,137 | 22,159 | 1,953 | 6,987 | 1,260 | 11,133 | 7,648 | 11,959 | 5,097 | 3,341 | 2,323 |
| PRD | 18,136 | 656 | 34,083 | 196 | 15,528 | 317 | 83,004 | 3,933 | 96,326 | 1,455 | 27,332 | 1,075 | 42,641 | 5,544 | 24,802 | 2,452 | 17,436 | 2,484 |
| RIS | 16,881 | 753 | 24,017 | 827 | 11,565 | 538 | 81,543 | 6,858 | 86,825 | 3,216 | 24,224 | 3,420 | 16,903 | 3,804 | 13,084 | 1,040 | 6,239 | 1,764 |
| RRH | 4,216 | 450 | 9,999 | 161 | 4,017 | 126 | 63,167 | 6,195 | 73,104 | 2,807 | 16,932 | 1,550 | 9,081 | 2,421 | 9,296 | 1,142 | 4,143 | 1,255 |
| WEL | 4,313 | 172 | 7,585 | 41 | 2,377 | 152 | 44,503 | 1,888 | 62,595 | 412 | 12,816 | 1,120 | 4,491 | 745 | 4,595 | 193 | 1,846 | 495 |

| DAM | Coho | | | | | | Sockeye | | | Steelhead | | | |
|-----|---------|-------|--------|-------|------------|-------|---------|--------|------------|-----------|---------|---------|-----------|
| | 2003 | | 2002 | | 10-Yr Avg. | | 2003 | 2002 | 10-Yr Avg. | 10-Yr | | | Wild 2003 |
| | Adult | Jack | Adult | Jack | Adult | Jack | | | | 2003 | 2002 | Avg. | |
| BON | 115,717 | 7,005 | 74,761 | 6,225 | 53,876 | 3,929 | 39,291 | 49,610 | 46,748 | 354,070 | 474,742 | 276,122 | 110,251 |
| TDA | 34,104 | 2,580 | 8,582 | 2,935 | 11,762 | 1,427 | 34,176 | 40,554 | 37,479 | 260,211 | 375,750 | 200,797 | 81,030 |
| JDA | 27,317 | 3,823 | 6,507 | 1,491 | 9,093 | 1,107 | 35,417 | 41,915 | 40,486 | 268,170 | 361,627 | 188,180 | 77,894 |
| MCN | 13,920 | 1,520 | 1,766 | 951 | 4,169 | 479 | 32,037 | 39,177 | 36,935 | 213,165 | 269,733 | 144,421 | 61,793 |
| IHR | 778 | 88 | 132 | 11 | 153 | 12 | 37 | 61 | 17 | 172,890 | 189,589 | 103,792 | 40,334 |
| LMN | 490 | 71 | 99 | 5 | 76 | 9 | 14 | 46 | 24 | 156,582 | 196,060 | 99,030 | 39,869 |
| LGS | 425 | 48 | 77 | 17 | 43 | 0 | 23 | 38 | 26 | 145,460 | 186,459 | 87,036 | 38,615 |
| LWG | 620 | 67 | 156 | 121 | 82 | 5 | 12 | 55 | 24 | 156,737 | 187,031 | 86,587 | 39,762 |
| PRD | 4,000 | 364 | 801 | 344 | 555 | 87 | 36,551 | 47,882 | 45,469 | 17,039 | 15,624 | 10,121 | n/c |
| RIS | 4,800 | 0 | 1,197 | 0 | 621 | 0 | 34,778 | 44,320 | 41,025 | 16,912 | 14,928 | 9,058 | 11,010 |
| RRH | 556 | 0 | 283 | 0 | 94 | 0 | 30,355 | 12,371 | 24,256 | 12,699 | 11,376 | 6,641 | 7,955 |
| WEL | 35 | 0 | 38 | 0 | 10 | 0 | 28,996 | 10,586 | 23,919 | 7,480 | 8,922 | 4,864 | 4,381 |

RIS, RRH, and WEL are through 10/15.

LGR is missing data for 3/6.

**PRD is not reporting Wild Steelhead numbers.

These numbers were collected from the COE's Running Sums text files, except where otherwise noted.

Wild steelhead numbers are included in the total.

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: 10/17/03

BON counts from January 1, 2003 to March 14, 2003 (our counts begin March 15)

| | | | |
|---------------|--------------|-----------|----------------|
| Chinook Adult | Chinook Jack | Steelhead | Wild Steelhead |
| 3,758 | 0 | 3,443 | 408 |

Two Week Transportation Summary

Source: Fish Passage Center

Updated:

10/17/03 11:47 AM

| | | 10/04/03 | TO | 10/17/03 | | | |
|--------------------------------------|--------------------------------|----------|-----|----------|----|----|-------------|
| | | Species | | | | | |
| Site | Data | CH0 | CH1 | CO | SO | ST | Grand Total |
| LGR | Sum of NumberCollected | 5,783 | 11 | 9 | 2 | 42 | 5,847 |
| | Sum of NumberBarged | 0 | 0 | 0 | 0 | 0 | 0 |
| | Sum of NumberBypassed | 0 | 0 | 0 | 0 | 38 | 38 |
| | Sum of NumberTrucked | 6,003 | 12 | 12 | 2 | 0 | 6,029 |
| | Sum of TotalProjectMortalities | 70 | 0 | 0 | 0 | 4 | 74 |
| LGS | Sum of NumberCollected | 740 | | 1 | 1 | 12 | 754 |
| | Sum of NumberBarged | 0 | | 0 | 0 | 0 | 0 |
| | Sum of NumberBypassed | 0 | | 0 | 0 | 0 | 0 |
| | Sum of NumberTrucked | 828 | | 1 | 1 | 12 | 842 |
| | Sum of TotalProjectMortalities | 2 | | 0 | 0 | 0 | 2 |
| Total Sum of NumberCollected | | 6,523 | 11 | 10 | 3 | 54 | 6,601 |
| Total Sum of NumberBarged | | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Sum of NumberBypassed | | 0 | 0 | 0 | 0 | 38 | 38 |
| Total Sum of NumberTrucked | | 6,831 | 12 | 13 | 3 | 12 | 6,871 |
| Total Sum of TotalProjectMortalities | | 72 | 0 | 0 | 0 | 4 | 76 |

YTD Transportation Summary

Source: Fish Passage Center

Updated:

10/17/03 11:48 AM

| | | TO: 10/17/03 | | | | | |
|--------------------------------------|--------------------------------|--------------|-----------|---------|---------|-----------|-------------|
| | | Species | | | | | |
| Site | Data | CH0 | CH1 | CO | SO | ST | Grand Total |
| LGR | Sum of NumberCollected | 1,164,883 | 2,577,022 | 90,062 | 9,754 | 2,337,132 | 6,178,853 |
| | Sum of NumberBarged | 1,122,378 | 2,470,893 | 89,264 | 9,549 | 2,265,797 | 5,957,881 |
| | Sum of NumberBypassed | 2,894 | 45,590 | 7 | 0 | 53,532 | 102,023 |
| | Sum of NumberTrucked | 21,115 | 54,258 | 181 | 83 | 15,727 | 91,364 |
| | Sum of TotalProjectMortalities | 18,492 | 5,982 | 610 | 122 | 2,077 | 27,283 |
| LGS | Sum of NumberCollected | 602,467 | 1,832,626 | 86,756 | 5,441 | 1,938,453 | 4,465,743 |
| | Sum of NumberBarged | 574,927 | 1,776,598 | 86,171 | 5,399 | 1,934,367 | 4,377,462 |
| | Sum of NumberBypassed | 0 | 22 | 0 | 0 | 3 | 25 |
| | Sum of NumberTrucked | 20,083 | 52,602 | 135 | 4 | 1,148 | 73,972 |
| | Sum of TotalProjectMortalities | 7,456 | 3,405 | 450 | 38 | 2,935 | 14,284 |
| LMN | Sum of NumberCollected | 290,325 | 463,390 | 26,554 | 3,307 | 1,229,842 | 2,013,418 |
| | Sum of NumberBarged | 246,893 | 440,282 | 25,842 | 3,262 | 1,150,928 | 1,867,207 |
| | Sum of NumberBypassed | 34,112 | 6,866 | 681 | 0 | 75,966 | 117,625 |
| | Sum of NumberTrucked | 7,581 | 15,238 | 13 | 40 | 1,658 | 24,530 |
| | Sum of TotalProjectMortalities | 1,739 | 1,004 | 18 | 5 | 1,290 | 4,056 |
| MCN | Sum of NumberCollected | 7,028,584 | 1,041,821 | 71,927 | 546,131 | 155,032 | 8,843,495 |
| | Sum of NumberBarged | 4,606,418 | 5,470 | 8,989 | 10,989 | 701 | 4,632,567 |
| | Sum of NumberBypassed | 2,284,576 | 1,035,087 | 62,604 | 534,287 | 154,084 | 4,070,638 |
| | Sum of NumberTrucked | 65,426 | 31 | 0 | 122 | 0 | 65,579 |
| | Sum of TotalProjectMortalities | 72,166 | 1,140 | 334 | 438 | 242 | 74,320 |
| Total Sum of NumberCollected | | 9,086,259 | 5,914,859 | 275,299 | 564,633 | 5,660,459 | 21,501,509 |
| Total Sum of NumberBarged | | 6,550,616 | 4,693,243 | 210,266 | 29,199 | 5,351,793 | 16,835,117 |
| Total Sum of NumberBypassed | | 2,321,582 | 1,087,565 | 63,292 | 534,287 | 283,585 | 4,290,311 |
| Total Sum of NumberTrucked | | 114,205 | 122,129 | 329 | 249 | 18,533 | 255,445 |
| Total Sum of TotalProjectMortalities | | 99,853 | 11,531 | 1,412 | 603 | 6,544 | 119,943 |

