



Fish Passage Center

Weekly Report #14 - 28

October 10, 2014

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*This is the final weekly report of 2014.
The FPC will resume our weekly
reporting in March of 2015.*

Summary of Events

Water Supply

Precipitation throughout the Columbia Basin has varied between 0% and 19% of average at individual sub-basins over first nine days of Water Year 2015 (October 1–9, 2014). Precipitation above The Dalles has been 8% of average over the beginning of Water Year 2015. Over the 2014 Water Year, precipitation ranged between 78% and 102% of average.

Table 1. Summary of Water Year 2014 precipitation and new Water Year 2015 precipitation with respect to average (1971–2000), at select locations within the Columbia and Snake River Basins.

| Location | Water Year 2014 October 1, 2013 to September 30, 2014 | | Water Year 2015 October 1, 2014 to October 9, 2014 | |
|--|---|--------------|--|--------------|
| | Observed (inches) | % Average | Observed (inches) | % Average |
| Columbia above Coulee | 35.8 | 92 | 0.1 | 17 |
| Snake River above Ice Harbor | 19.2 | 84 | 0.0 | 1 |
| Columbia above The Dalles | 24.0 | 84 | 0.0 | 8 |
| Kootenai | 38.1 | 94 | 0.2 | 19 |
| Clark Fork | 22.4 | 78 | 0.0 | 2 |
| Flathead | 35.3 | 95 | 0.1 | 14 |
| Pend Oreille River Basin above Waneta Dam | 29.1 | 86 | 0.0 | 6 |
| Salmon River Basin | 23.8 | 80 | 0.0 | 0 |
| Upper Snake Tributaries | 28.3 | 102 | 0.0 | 5 |
| Clearwater | 36.5 | 87 | 0.0 | 1 |
| Willamette River above Portland | 53.9 | 83 | 0.0 | 0 |

Grand Coulee Reservoir is at 1285.2 feet (10-9-14) and has refilled 0.8 feet over the last week. Outflows at Grand Coulee have ranged between 59.0 and 74.3 Kcfs over the last week.

The Libby Reservoir is currently at elevation 2447.7 feet (10-9-14) and has refilled 0.2 feet over the previous week. Daily average outflows at Libby Dam have been 4.0 Kcfs over the last week.

Hungry Horse is currently at an elevation of 3548.7 feet (10-9-14) and has drafted 0.7 feet over the previous week. Outflows at Hungry Horse have been 1.9–2.1 Kcfs over the last week.

Dworshak is currently at an elevation of 1518.5 feet (10-9-14) and has drafted 0.7 feet over the previous week. Outflows at Dworshak have been 1.7 Kcfs over the last week.

The Brownlee Reservoir was at an elevation of 2059.7 feet on October 9, 2014, and has refilled 2.3 feet last week. Inflows to Brownlee Dam have ranged between 11.2 and 12.3 Kcfs last week.

Smolt Monitoring

Smolt monitoring is ongoing at three SMP dams (BON, LGS, and LGR). Sampling at these three sites will continue through the end of this month. Sampling at McNary and Lower Monumental dams ended after the September 30th and October 1st samples, respectively.

The daily average passage index for subyearling Chinook at Bonneville Dam (BON) this week was about 85 per day. This daily average was similar to last week but slightly below the daily average from 2 weeks ago. This week's daily average passage index for subyearling Chinook at Lower Granite Dam (LGR)

was about 210 per day, which is a large increase from recent weeks. Last week's daily average passage index for subyearling Chinook at LGR was about 30 per day. Subyearling Chinook passage at Little Goose Dam (LGS) was extremely low this week, with a daily average passage index of only 7 fish per day.

Pacific lamprey macrophthalmia were encountered at BON on one day this week, October 3rd, with an estimated collection of ten. A total of four pacific lamprey macrophthalmia were sampled this week at LGR, one on October 5th, two on October 6th, and one on October 9th. Pacific lamprey macrophthalmia were encountered in six of this week's samples at LGS. The maximum collection for pacific lamprey macrophthalmia at LGS this week was three, on October 4th. No pacific lamprey ammocoetes were encountered at BON, LGR, or LGS this week.

Hatchery Release

Snake River Zone: The Snake River Zone encompasses the Snake River and its tributaries from its confluence with the Columbia River to Hells Canyon Dam. There were no new releases scheduled for this zone this week. Approximately 225,000 spring Chinook pre-smolts were scheduled for release into tributaries of the Clearwater River. These pre-smolt releases were expected to occur sometime in early to mid-October. All pre-smolts were planned to be 100% coded-wire tagged and are not expected to out-migrate until spring 2015. No other releases are scheduled for this zone over the next 2 weeks.

Mid-Columbia Zone: The Mid-Columbia Zone encompasses the area of the Columbia River and its tributaries from McNary Dam to Chief Joseph Dam. There were no releases scheduled for this zone this week and no releases are scheduled for this zone over the next 2 weeks.

Lower Columbia Zone: The Lower Columbia Zone is defined as the Columbia River and its tributaries from Bonneville Dam to McNary Dam. There were no releases scheduled for this zone this week. There are no other releases scheduled for this zone over the next 2 weeks.

Adult Passage

Daily adult fall Chinook passage numbers at Bonneville Dam ranged between 2,041 and 4,257 last week. The adult fall Chinook count of 836,672 is about 91% of the 2013 count of 917,514, while being about 2 times greater than the 10-year average count of 410,360. The 2014 Bonneville Dam fall Chinook jack count of 130,417 is about 1.2 times greater than the 2013 count of 105,957 and 2.0 times greater than the 10-year average count of 64,941. The 2014 McNary Dam adult fall Chinook count of 387,529 has 28,433 fewer fish than the 2013 count but is 2.6 times greater than the 10-year average. The 2014 McNary Dam jack count of 68,416 is about 1.4 times greater than the 2013 count and 2.2 times greater than the 10-year average count. The 2014 Lower Granite Dam adult fall Chinook count of 56,722 has 3,952 more fish than the 2013 count, while being 2.6 times greater than the 10-year average. The 2014 Lower Granite Dam jack count of 16,879 is about 85% of the 2013 count, while having 3,239 more fish than the the 10-year average count.

Daily steelhead counts at Bonneville Dam ranged from 361 to 863. The 2014 Bonneville Dam adult steelhead count of 317,734 is about 1.4 times greater than the 2013 count of 230,145, while being about 93% of the 10-year average count of 343,281. The 2014 Bonneville Dam adult wild steelhead count of 127,367 is about 1.3 times greater than the 2013 count of 97,768 and about 1.2 times greater than the 10-year average count of 107,871. In the Snake River, this year's Lower Granite steelhead count of 119,179 is 1.6 times greater than the 2013 count, while being 94% of the 10-year average count. The 2014 Lower Granite Dam adult wild steelhead count of 39,126 is about 1.7 times greater than the 2013 count and has 7,105 more fish than the 10-year average count. At Willamette Falls, the 2014 count for steelhead was 27,434 as of September 29th. This year's steelhead count is about 1.5 times greater than the 2013 count of 17,887 and has 2,144 more fish than the 10-year average count.

Daily counts of coho have ranged between 2,708 and 3,317 over the last week at Bonneville Dam. The 2014 Bonneville Dam adult coho count of 209,824 is about 4.8 times greater than the 2013 count of 43,846 and about 2.4 times greater than the 10-year average

count of 89,403. The 2014 Bonneville Dam coho jack count of 12,307 is about 2.2 times greater than the 2013 count of 5,612 and 2.3 times greater than the 10-year average count of 5,476.

Wanapum Dam Update

At Wanapum Dam a significant crack (65-feet long by 2-inches wide) was discovered in a spillway monolith (#4) on February 27, 2014. This discovery has led to an emergency drawdown of the Wanapum pool to an elevation range of 541–545 feet, which is over 20 feet below its typical forebay elevation. Grant County has designed adult fishway retrofits that involve the use of weir boxes and chutes to deliver adult fish into the forebay of Wanapum Dam. Grant County PUD installed spiral flumes on the left and right bank fishway chutes that reduce the elevation of the chute outflow from more than 10 feet down to several feet. Over 2014, the fishway exit retrofits have performed well. As of October 9, 2014, a total of 608,142 sockeye and 203,963 adult Chinook had passed Priest Rapids Dam. As of October 9, 2014, 581,111 sockeye and 123,430 adult Chinook had passed Rock Island Dam.

Grant PUD has had problems with aquatic vegetation clogging the upper ladder supply pumps (four per ladder), especially on the left bank fishway. As long as this issue continues, Grant PUD plans to clean the pumps at least 3 days per week and more often if needed. During pump cleaning, attraction water to the lower fishway will remain on and two of the four upper ladder pumps will be cleaned at a time, always leaving two pumps to supply water to the upper fishway and the weir chute.

The drawdown of Wanapum pool has also had a significant impact on the adult fishways at Rock Island Dam, operated by Chelan PUD. With the lower than normal tailrace levels, Chelan PUD has constructed extensions or denils at several ladder entrances. Chelan County PUD currently has all three denils in place: two at the right bank fishway and one on the left bank fishway.

The drawdown of the Wanapum reservoir coupled with very low September river flows have created a difficult situation for adult fish passage at Rock Island Dam. Under the current tailrace elevations, and at river flows roughly less than 75 Kcfs, Chelan PUD cannot operate their powerhouses. Under spill only conditions throughout an entire day, adult passage at Rock Island Dam has generally been poor. All in all, despite the low flows that Chelan PUD has been receiving along with the drawdown of the Wanapum pool and associated Rock Island tailrace, fishway attendants/biologists at Chelan PUD have been working very hard at creating favorable fish passage conditions at Rock Island Dam. This has involved large daily changes in river conditions from all spill to powerhouse operations, each of which influences fishways in various ways. Chelan PUD has worked hard to provide a pulse of water daily in which the powerhouse can be operated which has provided the best possible conditions for migrating adult salmonids. Over most days of the week, Chelan PUD has been able to operate the powerhouse beginning at 8:00–9:00 AM. However over some weekend days, the powerhouse has not begun to operate until later in the afternoon (3:00–4:00 PM).

Hatchery Releases Last Two Weeks

| From: | | Hatchery Release Summary | | | | | | | |
|------------------------------|---------------------------|--------------------------|------|-----------|----------------|----------|----------|---------------|-----------------------|
| | | 9/26/2014 | to | 10/9/2014 | | | | | |
| Agency | Hatchery | Species | Race | MigYr | NumRel | RelStart | RelEnd | RelSite | RelRiver |
| Nez Perce Tribe | Nez Perce Tribal Hatchery | CH0 | SP | 2014 | 75,000 | 10-01-14 | 10-15-14 | Newsome Creek | S Fk Clearwater River |
| Nez Perce Tribe | Nez Perce Tribal Hatchery | CH0 | SP | 2015 | 150,000 | 10-01-14 | 10-15-14 | Lolo Creek | Clearwater River M F |
| Nez Perce Tribe Total | | | | | 225,000 | | | | |
| Grand Total | | | | | 225,000 | | | | |

Hatchery Releases Next Two Weeks

| From: | | Hatchery Release Summary | | | | | | | |
|------------------------------|---------------------------|--------------------------|------|------------|----------------|----------|----------|---------------|-----------------------|
| | | 10/10/2014 | to | 10/23/2014 | | | | | |
| Agency | Hatchery | Species | Race | MigYr | NumRel | RelStart | RelEnd | RelSite | RelRiver |
| Nez Perce Tribe | Nez Perce Tribal Hatchery | CH0 | SP | 2014 | 75,000 | 10-01-14 | 10-15-14 | Newsome Creek | S Fk Clearwater River |
| Nez Perce Tribe | Nez Perce Tribal Hatchery | CH0 | SP | 2015 | 150,000 | 10-01-14 | 10-15-14 | Lolo Creek | Clearwater River M F |
| Nez Perce Tribe Total | | | | | 225,000 | | | | |
| Grand Total | | | | | 225,000 | | | | |

CH = Chinook, ST = Steelhead, CO = Coho, SO = Sockeye, CT = Cutthroat Trout, CM = Chum

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 |
| 09/26/2014 | 73.1 | 0.1 | 69.3 | 0.0 | 65.6 | 0.0 | 67.4 | 0.0 | 68.6 | 16.3 | 68.7 | 3.8 | 65.9 | 2.2 |
| 09/27/2014 | 56.1 | 0.1 | 63.6 | 0.0 | 65.3 | 0.0 | 67.5 | 0.0 | 69.3 | 19.9 | 71.0 | 3.9 | 72.3 | 2.4 |
| 09/28/2014 | 57.9 | 0.1 | 62.0 | 0.0 | 60.0 | 0.0 | 61.9 | 0.0 | 65.6 | 27.9 | 66.5 | 3.9 | 63.9 | 2.3 |
| 09/29/2014 | 52.4 | 0.1 | 52.9 | 0.0 | 59.0 | 0.0 | 59.5 | 0.0 | 60.3 | 25.9 | 70.0 | 3.9 | 72.7 | 1.2 |
| 09/30/2014 | 53.6 | 0.1 | 54.9 | 0.0 | 55.3 | 0.0 | 50.5 | 0.0 | 49.9 | 48.4 | 50.7 | 3.7 | 50.4 | 1.4 |
| 10/01/2014 | 64.4 | 0.0 | 63.5 | 0.0 | 57.6 | 0.0 | 60.8 | 0.0 | 64.4 | 30.0 | 59.2 | 3.8 | 53.7 | 1.9 |
| 10/02/2014 | 77.8 | 0.0 | 75.0 | 0.0 | 73.2 | 0.0 | 68.3 | 0.0 | 72.1 | 18.2 | 74.2 | 4.0 | 73.8 | 2.6 |
| 10/03/2014 | 71.3 | 0.0 | 68.8 | 0.0 | 69.1 | 0.0 | 71.5 | 0.0 | 74.1 | 15.3 | 78.1 | 3.8 | 82.2 | 2.5 |
| 10/04/2014 | 65.4 | 0.0 | 67.2 | 0.0 | 64.2 | 0.0 | 58.8 | 0.0 | 60.4 | 32.2 | 60.5 | 3.9 | 57.8 | 2.4 |
| 10/05/2014 | 59.0 | 0.0 | 64.5 | 0.0 | 67.1 | 0.0 | 69.1 | 0.0 | 71.3 | 36.1 | 72.4 | 4.0 | 71.5 | 2.8 |
| 10/06/2014 | 70.8 | 0.0 | 61.8 | 0.0 | 70.7 | 0.0 | 73.4 | 0.0 | 75.3 | 16.7 | 79.7 | 3.9 | 86.6 | 2.0 |
| 10/07/2014 | 70.5 | 0.0 | 69.2 | 0.0 | 75.0 | 0.0 | 73.9 | 0.0 | 77.4 | 15.6 | 85.4 | 3.8 | 89.2 | 2.0 |
| 10/08/2014 | 69.5 | 0.0 | 69.7 | 0.0 | 69.8 | 0.0 | 71.0 | 0.0 | 73.8 | 12.4 | 74.0 | 3.8 | 72.6 | 1.5 |
| 10/09/2014 | 74.3 | 0.0 | 69.2 | 0.0 | 70.5 | 0.0 | 71.2 | 0.0 | 73.7 | 14.2 | 74.4 | 3.8 | 80.2 | 2.0 |

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

| Date | Dworshak | | Brownlee Inflow | Hells Canyon Outflow | Lower Granite | | Little Goose | | Lower Monumental | | Ice Harbor | |
|------------|----------|-------|-----------------|----------------------|---------------|-------|--------------|-------|------------------|-------|------------|-------|
| | Flow | Spill | | | Flow | Spill | Flow | Spill | Flow | Spill | Flow | Spill |
| 09/26/2014 | 1.7 | 0.0 | --- | 10.8 | 15.3 | 0.0 | 13.3 | 0.0 | 12.2 | 0.0 | 10.5 | 0.0 |
| 09/27/2014 | 1.7 | 0.0 | --- | 10.7 | 16.6 | 0.0 | 15.6 | 0.0 | 15.0 | 0.0 | 14.3 | 0.0 |
| 09/28/2014 | 1.7 | 0.0 | --- | 11.0 | 19.8 | 0.0 | 15.7 | 0.0 | 15.5 | 0.0 | 15.7 | 0.0 |
| 09/29/2014 | 1.7 | 0.0 | --- | 9.8 | 15.9 | 0.0 | 14.1 | 0.0 | 13.9 | 0.0 | 12.8 | 0.0 |
| 09/30/2014 | 1.7 | 0.0 | --- | 9.3 | 17.2 | 0.0 | 14.0 | 0.0 | 13.7 | 0.0 | 14.9 | 0.0 |
| 10/01/2014 | 1.7 | 0.0 | --- | 9.3 | 18.4 | 0.0 | 16.7 | 0.0 | 16.0 | 0.0 | 16.3 | 0.0 |
| 10/02/2014 | 1.7 | 0.0 | --- | 9.3 | 19.3 | 0.0 | 16.0 | 0.0 | 15.8 | 0.0 | 14.7 | 0.0 |
| 10/03/2014 | 1.7 | 0.0 | --- | 9.3 | 19.3 | 0.0 | 18.6 | 0.0 | 19.0 | 0.0 | 19.1 | 0.0 |
| 10/04/2014 | 1.7 | 0.0 | --- | 9.3 | 19.1 | 0.0 | 18.1 | 0.0 | 17.0 | 0.0 | 15.6 | 0.0 |
| 10/05/2014 | 1.7 | 0.0 | --- | 9.3 | 18.0 | 0.0 | 17.5 | 0.0 | 17.3 | 0.0 | 17.8 | 0.0 |
| 10/06/2014 | 1.7 | 0.0 | --- | 9.4 | 20.7 | 0.0 | 20.3 | 0.0 | 21.7 | 0.0 | 23.7 | 0.0 |
| 10/07/2014 | 1.7 | 0.0 | --- | 9.7 | 17.7 | 0.0 | 17.3 | 0.0 | 17.2 | 0.0 | 16.3 | 0.0 |
| 10/08/2014 | 1.7 | 0.0 | --- | 9.9 | 18.1 | 0.0 | 17.4 | 0.0 | 17.8 | 0.0 | 17.9 | 0.0 |
| 10/09/2014 | 1.7 | 0.0 | --- | 11.0 | 18.6 | 0.0 | 18.6 | 0.0 | 18.3 | 0.0 | 19.2 | 0.0 |

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

| Date | McNary | | John Day | | The Dalles | | Bonneville | | PH1 | PH2 |
|------------|--------|-------|----------|-------|------------|-------|------------|-------|------|------|
| | Flow | Spill | Flow | Spill | Flow | Spill | Flow | Spill | | |
| 09/26/2014 | 76.0 | 0.0 | 76.5 | 0.9 | 78.3 | 0.0 | 88.1 | 1.2 | 60.9 | 18.6 |
| 09/27/2014 | 83.6 | 0.0 | 87.3 | 1.0 | 88.3 | 0.0 | 95.1 | 1.2 | 65.9 | 20.5 |
| 09/28/2014 | 87.8 | 0.0 | 81.9 | 0.9 | 81.7 | 0.0 | 89.5 | 1.2 | 43.8 | 37.1 |
| 09/29/2014 | 78.8 | 0.0 | 68.6 | 0.9 | 69.9 | 0.0 | 85.0 | 1.2 | 17.3 | 59.0 |
| 09/30/2014 | 77.6 | 0.0 | 72.6 | 1.0 | 72.4 | 0.0 | 77.4 | 1.2 | 8.5 | 60.3 |
| 10/01/2014 | 72.8 | 0.0 | 71.9 | 1.0 | 74.4 | 0.0 | 79.6 | 1.2 | 4.9 | 66.1 |
| 10/02/2014 | 87.5 | 0.0 | 86.9 | 1.1 | 86.9 | 0.0 | 93.9 | 1.2 | 3.5 | 81.7 |
| 10/03/2014 | 98.4 | 0.0 | 100.9 | 0.9 | 99.8 | 0.0 | 102.2 | 1.2 | 7.6 | 86.0 |
| 10/04/2014 | 85.0 | 0.0 | 73.5 | 0.9 | 76.1 | 0.0 | 82.7 | 1.2 | 1.7 | 72.3 |
| 10/05/2014 | 80.9 | 0.0 | 80.3 | 0.9 | 79.6 | 0.0 | 82.5 | 1.2 | 0.0 | 73.9 |
| 10/06/2014 | 105.7 | 0.0 | 96.2 | 0.9 | 100.0 | 0.0 | 114.9 | 1.2 | 34.9 | 71.4 |
| 10/07/2014 | 111.5 | 0.0 | 101.2 | 0.8 | 98.6 | 0.0 | 104.4 | 1.1 | 24.7 | 71.2 |
| 10/08/2014 | 103.0 | 0.0 | 104.9 | 0.9 | 102.8 | 0.0 | 105.7 | 1.1 | 27.3 | 69.9 |
| 10/09/2014 | 94.6 | 0.0 | 100.2 | 0.9 | 102.9 | 0.0 | 108.2 | 1.1 | 23.4 | 76.3 |

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 | Hungry H. Dnst | | | Boundary | | | Grand Coulee | | | Grand C. Tlwr | | | Chief Joseph | | | | | | | |
|------|----------------|-------|-------|----------|------|-----|--------------|------|-------|---------------|-------|----|--------------|-------|-------|------|-------|-------|-------|------|
| | 24 h | 12 h | # | 24 h | 12 h | # | 24 h | 12 h | # | 24 h | 12 h | # | 24 h | 12 h | # | | | | | |
| | Avg | Avg | | High | hr | | Avg | Avg | | High | hr | | Avg | Avg | | High | hr | Avg | Avg | High |
| 9/26 | 103.0 | 103.2 | 103.5 | 24 | --- | --- | --- | 0 | 101.1 | 101.2 | 101.5 | 24 | 100.7 | 101.0 | 101.2 | 24 | 101.3 | 101.7 | 101.9 | 24 |
| 9/27 | 102.5 | 102.8 | 103.1 | 24 | --- | --- | --- | 0 | 100.9 | 101.0 | 101.1 | 24 | 100.3 | 100.9 | 101.1 | 24 | 100.8 | 101.0 | 101.4 | 24 |
| 9/28 | 101.9 | 102.1 | 102.5 | 24 | --- | --- | --- | 0 | 101.2 | 101.4 | 101.5 | 24 | 101.0 | 101.4 | 101.6 | 24 | 101.0 | 101.3 | 101.7 | 24 |
| 9/29 | 102.4 | 103.0 | 103.2 | 24 | --- | --- | --- | 0 | 101.8 | 101.9 | 102.1 | 24 | 101.7 | 102.2 | 102.6 | 24 | 101.5 | 101.8 | 102.1 | 24 |
| 9/30 | 102.7 | 103.0 | 103.1 | 24 | --- | --- | --- | 0 | 101.4 | 101.6 | 101.9 | 24 | 101.4 | 101.6 | 102.1 | 24 | 100.9 | 101.3 | 101.6 | 24 |
| 10/1 | 102.0 | 102.2 | 102.3 | 24 | --- | --- | --- | 0 | 101.0 | 101.1 | 101.2 | 24 | 100.2 | 100.6 | 100.8 | 24 | 100.1 | 100.4 | 100.5 | 24 |
| 10/2 | 102.0 | 102.4 | 102.9 | 24 | --- | --- | --- | 0 | 100.4 | 100.6 | 101.0 | 24 | 99.3 | 99.5 | 100.0 | 24 | 99.9 | 100.1 | 100.3 | 24 |
| 10/3 | 101.3 | 101.6 | 102.0 | 24 | --- | --- | --- | 0 | 100.1 | 100.3 | 100.5 | 24 | 99.0 | 99.3 | 99.5 | 24 | 99.9 | 100.2 | 100.4 | 24 |
| 10/4 | 101.2 | 101.5 | 101.8 | 24 | --- | --- | --- | 0 | 100.7 | 100.8 | 101.0 | 24 | 99.5 | 99.8 | 100.1 | 24 | 100.2 | 100.4 | 100.6 | 24 |
| 10/5 | 101.4 | 101.7 | 101.9 | 24 | --- | --- | --- | 0 | 100.8 | 101.0 | 101.1 | 24 | 99.5 | 99.8 | 100.0 | 24 | 100.3 | 100.6 | 100.9 | 24 |
| 10/6 | 101.8 | 102.0 | 102.2 | 24 | --- | --- | --- | 0 | 101.1 | 101.2 | 101.4 | 24 | 100.1 | 100.5 | 100.8 | 24 | 100.5 | 100.9 | 101.0 | 24 |
| 10/7 | 102.1 | 102.5 | 102.7 | 24 | --- | --- | --- | 0 | 101.1 | 101.2 | 101.4 | 24 | 100.1 | 100.5 | 100.8 | 24 | 100.7 | 101.0 | 101.4 | 24 |
| 10/8 | 101.9 | 102.1 | 102.3 | 24 | --- | --- | --- | 0 | 100.9 | 101.1 | 101.2 | 24 | 99.6 | 99.8 | 100.0 | 24 | 100.6 | 100.8 | 100.9 | 24 |
| 10/9 | 101.5 | 101.8 | 102.2 | 23 | --- | --- | --- | 0 | 100.6 | 100.7 | 100.8 | 23 | 99.2 | 99.4 | 99.6 | 23 | 100.4 | 100.6 | 100.9 | 23 |

Total Dissolved Gas Saturation Data at Mid Columbia River Sites

| Date | Chief J. Dnst | | | Wells | | | Wells Dwnstrm | | | Rocky Reach | | | Rocky R. Tlwr | | | | | | | |
|------|---------------|-------|-------|-------|-------|-------|---------------|------|-------|-------------|-------|----|---------------|-------|-------|------|-------|-------|-------|------|
| | 24 h | 12 h | # | 24 h | 12 h | # | 24 h | 12 h | # | 24 h | 12 h | # | 24 h | 12 h | # | | | | | |
| | Avg | Avg | | High | hr | | Avg | Avg | | High | hr | | Avg | Avg | | High | hr | Avg | Avg | High |
| 9/26 | 102.5 | 102.9 | 103.9 | 24 | 100.8 | 101.0 | 101.4 | 19 | 100.8 | 101.2 | 101.6 | 19 | 101.6 | 101.8 | 102.2 | 24 | 101.2 | 101.3 | 101.9 | 24 |
| 9/27 | 102.3 | 103.2 | 104.8 | 24 | 100.4 | 100.8 | 101.5 | 19 | 100.2 | 100.7 | 101.5 | 19 | 101.1 | 101.3 | 101.5 | 24 | 100.6 | 100.8 | 100.9 | 24 |
| 9/28 | 102.5 | 103.2 | 103.7 | 24 | 101.6 | 102.1 | 102.7 | 21 | 101.1 | 101.9 | 102.7 | 20 | 101.4 | 101.7 | 101.9 | 24 | 100.8 | 101.1 | 101.5 | 24 |
| 9/29 | 103.1 | 104.0 | 105.6 | 24 | 102.3 | 102.6 | 103.3 | 18 | 102.1 | 102.6 | 103.3 | 18 | 101.9 | 102.0 | 102.2 | 24 | 101.5 | 101.7 | 101.9 | 24 |
| 9/30 | 102.9 | 103.5 | 104.8 | 24 | 101.5 | 101.8 | 102.0 | 19 | 101.5 | 101.8 | 102.3 | 19 | 101.0 | 101.3 | 101.5 | 24 | 100.7 | 101.0 | 101.5 | 24 |
| 10/1 | 101.6 | 102.2 | 102.7 | 24 | 100.5 | 100.8 | 101.4 | 22 | 100.6 | 101.1 | 101.8 | 22 | 100.5 | 100.7 | 100.8 | 24 | 100.2 | 100.5 | 100.7 | 24 |
| 10/2 | 101.5 | 102.2 | 102.7 | 24 | 99.8 | 100.0 | 100.5 | 22 | 99.9 | 100.2 | 101.1 | 22 | 99.8 | 100.0 | 100.5 | 24 | 99.8 | 100.1 | 100.7 | 24 |
| 10/3 | 101.1 | 101.7 | 102.5 | 24 | 99.8 | 100.2 | 100.4 | 18 | 99.9 | 100.3 | 100.5 | 18 | 99.5 | 99.7 | 99.9 | 24 | 99.7 | 99.9 | 100.1 | 24 |
| 10/4 | 101.1 | 101.5 | 102.3 | 24 | 100.3 | 100.4 | 100.7 | 20 | 100.3 | 100.6 | 101.1 | 20 | 99.8 | 99.9 | 100.0 | 24 | 99.9 | 100.2 | 100.4 | 24 |
| 10/5 | 101.3 | 101.9 | 102.8 | 24 | 100.7 | 101.0 | 102.2 | 18 | 100.7 | 101.1 | 102.3 | 18 | 100.2 | 100.4 | 100.5 | 24 | 100.2 | 100.4 | 100.8 | 24 |
| 10/6 | 100.5 | 100.9 | 101.2 | 24 | 101.5 | 101.8 | 102.3 | 19 | 101.6 | 102.1 | 103.0 | 19 | 100.6 | 100.9 | 100.9 | 24 | 100.9 | 101.2 | 101.4 | 24 |
| 10/7 | 100.3 | 100.8 | 101.3 | 24 | 101.7 | 102.0 | 102.5 | 18 | 101.9 | 102.3 | 102.9 | 19 | 101.4 | 102.1 | 102.7 | 22 | 101.3 | 101.8 | 102.3 | 22 |
| 10/8 | 100.3 | 100.6 | 101.0 | 24 | 100.9 | 101.2 | 101.6 | 20 | 101.2 | 101.5 | 102.0 | 20 | 102.0 | 102.1 | 102.4 | 24 | 101.7 | 101.8 | 102.3 | 24 |
| 10/9 | 100.1 | 100.6 | 101.2 | 23 | 100.2 | 100.3 | 100.8 | 16 | 100.4 | 100.5 | 101.6 | 16 | 101.3 | 101.7 | 101.9 | 20 | 101.1 | 101.5 | 101.6 | 20 |

Total Dissolved Gas Saturation at Mid Columbia River Sites

| Date | Rock Island | | | Rock I. Tlwr | | | Wanapum | | | Wanapum Tlwr | | | Priest Rapids | | | | | | | |
|------|-------------|-------|-------|--------------|-------|-------|---------|------|-------|--------------|-------|----|---------------|-------|-------|------|-------|-------|-------|------|
| | 24 h | 12 h | # | 24 h | 12 h | # | 24 h | 12 h | # | 24 h | 12 h | # | 24 h | 12 h | # | | | | | |
| | Avg | Avg | | High | hr | | Avg | Avg | | High | hr | | Avg | Avg | | High | hr | Avg | Avg | High |
| 9/26 | 101.0 | 101.2 | 101.5 | 24 | 105.0 | 109.0 | 113.5 | 24 | 102.6 | 104.3 | 105.8 | 24 | 103.4 | 104.4 | 105.2 | 24 | 102.3 | 103.1 | 104.1 | 24 |
| 9/27 | 100.8 | 101.0 | 101.3 | 24 | 105.6 | 110.1 | 113.0 | 24 | 102.4 | 104.0 | 104.9 | 24 | 103.7 | 104.5 | 105.2 | 24 | 102.3 | 103.5 | 104.4 | 24 |
| 9/28 | 101.1 | 101.3 | 101.6 | 24 | 106.8 | 111.4 | 113.2 | 24 | 102.8 | 103.7 | 104.9 | 24 | 103.5 | 104.4 | 104.8 | 24 | 103.3 | 104.1 | 104.7 | 24 |
| 9/29 | 101.4 | 101.5 | 101.6 | 24 | 107.1 | 111.9 | 114.4 | 24 | 102.2 | 103.2 | 103.8 | 24 | 103.3 | 104.0 | 104.9 | 24 | 103.0 | 103.9 | 104.4 | 24 |
| 9/30 | 100.7 | 101.1 | 101.3 | 24 | 111.8 | 112.7 | 113.5 | 24 | 100.4 | 100.8 | 101.3 | 24 | 101.1 | 101.3 | 102.4 | 24 | 100.9 | 101.4 | 102.1 | 24 |
| 10/1 | 99.8 | 100.1 | 100.5 | 24 | 106.5 | 112.0 | 114.3 | 24 | 100.5 | 100.9 | 101.8 | 24 | 101.1 | 101.4 | 101.7 | 24 | 99.1 | 99.7 | 100.5 | 24 |
| 10/2 | 99.7 | 99.8 | 100.0 | 24 | 104.5 | 109.3 | 114.6 | 24 | 101.7 | 103.2 | 104.6 | 24 | 101.5 | 102.2 | 103.5 | 24 | 99.3 | 100.0 | 100.7 | 24 |
| 10/3 | 99.5 | 99.7 | 100.1 | 24 | 103.4 | 107.0 | 114.6 | 23 | 104.5 | 105.7 | 106.9 | 24 | 105.1 | 106.0 | 106.4 | 24 | 101.0 | 102.2 | 102.6 | 24 |
| 10/4 | 99.8 | 100.0 | 100.1 | 24 | 107.1 | 111.3 | 115.1 | 24 | 103.7 | 104.4 | 105.6 | 24 | 104.0 | 104.5 | 105.0 | 24 | 104.3 | 105.3 | 106.5 | 24 |
| 10/5 | 99.7 | 100.3 | 100.9 | 24 | 108.7 | 113.1 | 116.4 | 24 | 103.4 | 104.8 | 105.7 | 24 | 102.9 | 103.9 | 104.5 | 24 | 104.7 | 105.5 | 106.5 | 24 |
| 10/6 | 100.8 | 101.0 | 101.5 | 24 | 104.4 | 108.0 | 115.4 | 24 | 103.4 | 104.3 | 105.0 | 24 | 103.7 | 105.2 | 105.9 | 24 | 103.6 | 104.5 | 105.8 | 24 |
| 10/7 | 100.9 | 101.7 | 102.2 | 24 | 104.7 | 107.7 | 114.4 | 22 | 105.7 | 107.4 | 110.1 | 24 | 105.5 | 106.8 | 107.6 | 24 | 103.5 | 104.9 | 106.2 | 24 |
| 10/8 | 101.4 | 101.6 | 102.0 | 24 | 102.0 | 103.3 | 110.1 | 24 | 103.6 | 104.2 | 104.7 | 24 | 103.9 | 104.5 | 104.9 | 24 | 103.9 | 104.8 | 106.4 | 24 |
| 10/9 | 101.0 | 101.2 | 101.3 | 23 | 102.9 | 105.1 | 116.3 | 23 | --- | --- | --- | 0 | --- | --- | --- | 0 | --- | --- | --- | 0 |

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

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

| Date | <u>Priest R. Dnst</u> | | | <u>Pasco</u> | | | <u>Dworshak</u> | | | <u>Clrwtr-Peck</u> | | | <u>Anatone</u> | | | | | | | |
|------|-----------------------|-------------|-------------|--------------|-------------|------------|-----------------|-------------|------------|--------------------|-------------|-----------|----------------|-------------|-------------|-----------|------|------|------|---|
| | <u>24 h</u> | <u>12 h</u> | <u>#</u> | <u>24 h</u> | <u>12 h</u> | <u>#</u> | <u>24 h</u> | <u>12 h</u> | <u>#</u> | <u>24 h</u> | <u>12 h</u> | <u>#</u> | <u>24 h</u> | <u>12 h</u> | <u>#</u> | | | | | |
| | <u>Avg</u> | <u>Avg</u> | <u>High</u> | <u>hr</u> | <u>Avg</u> | <u>Avg</u> | <u>High</u> | <u>hr</u> | <u>Avg</u> | <u>Avg</u> | <u>High</u> | <u>hr</u> | <u>Avg</u> | <u>Avg</u> | <u>High</u> | <u>hr</u> | | | | |
| 9/26 | 102.6 | 103.1 | 103.3 | 24 | --- | --- | --- | 0 | 105.7 | 106.4 | 107.3 | 24 | 102.6 | 102.6 | 103.0 | 3 | 98.6 | 98.6 | 99.0 | 7 |
| 9/27 | 102.7 | 103.2 | 103.4 | 24 | --- | --- | --- | 0 | 105.6 | 106.3 | 107.2 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 9/28 | 103.7 | 104.2 | 104.4 | 24 | --- | --- | --- | 0 | 105.9 | 106.7 | 108.2 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 9/29 | 103.9 | 104.2 | 104.4 | 24 | --- | --- | --- | 0 | 105.8 | 106.2 | 106.8 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 9/30 | 101.9 | 102.4 | 103.2 | 24 | --- | --- | --- | 0 | 105.6 | 106.3 | 106.9 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/1 | 100.6 | 101.1 | 101.5 | 24 | --- | --- | --- | 0 | 105.2 | 105.9 | 106.9 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/2 | 100.1 | 100.3 | 100.4 | 24 | --- | --- | --- | 0 | 104.7 | 105.5 | 106.7 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/3 | 101.0 | 101.8 | 102.0 | 24 | --- | --- | --- | 0 | 104.6 | 105.5 | 106.7 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/4 | 103.8 | 105.0 | 105.2 | 24 | --- | --- | --- | 0 | 105.0 | 105.8 | 107.0 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/5 | 105.0 | 105.2 | 105.3 | 24 | --- | --- | --- | 0 | 106.6 | 107.6 | 108.8 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/6 | 104.4 | 104.7 | 105.0 | 24 | --- | --- | --- | 0 | 106.4 | 107.0 | 108.1 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/7 | 104.1 | 104.8 | 105.4 | 24 | --- | --- | --- | 0 | 105.9 | 106.6 | 108.1 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/8 | 104.2 | 105.0 | 105.5 | 24 | --- | --- | --- | 0 | 105.8 | 106.6 | 107.7 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/9 | --- | --- | --- | 0 | --- | --- | --- | 0 | 106.7 | 107.4 | 108.7 | 23 | --- | --- | --- | 0 | --- | --- | --- | 0 |

Total Dissolved Gas Saturation Data at Snake River Sites

| Date | <u>Clrwtr-Lewiston</u> | | | <u>Lower Granite</u> | | | <u>L. Granite Tlwr</u> | | | <u>Little Goose</u> | | | <u>L. Goose Tlwr</u> | | | | | | | |
|------|------------------------|-------------|-------------|----------------------|-------------|------------|------------------------|-------------|------------|---------------------|-------------|-----------|----------------------|-------------|-------------|-----------|------|------|-------|----|
| | <u>24 h</u> | <u>12 h</u> | <u>#</u> | <u>24 h</u> | <u>12 h</u> | <u>#</u> | <u>24 h</u> | <u>12 h</u> | <u>#</u> | <u>24 h</u> | <u>12 h</u> | <u>#</u> | <u>24 h</u> | <u>12 h</u> | <u>#</u> | | | | | |
| | <u>Avg</u> | <u>Avg</u> | <u>High</u> | <u>hr</u> | <u>Avg</u> | <u>Avg</u> | <u>High</u> | <u>hr</u> | <u>Avg</u> | <u>Avg</u> | <u>High</u> | <u>hr</u> | <u>Avg</u> | <u>Avg</u> | <u>High</u> | <u>hr</u> | | | | |
| 9/26 | 99.4 | 99.4 | 100.4 | 10 | --- | --- | --- | 0 | 98.7 | 98.9 | 99.4 | 24 | --- | --- | --- | 0 | 98.4 | 98.6 | 98.9 | 24 |
| 9/27 | --- | --- | --- | 0 | --- | --- | --- | 0 | 99.3 | 99.7 | 99.9 | 24 | --- | --- | --- | 0 | 98.5 | 98.9 | 99.4 | 24 |
| 9/28 | --- | --- | --- | 0 | --- | --- | --- | 0 | 100.1 | 100.5 | 101.1 | 24 | --- | --- | --- | 0 | 99.3 | 99.8 | 100.1 | 24 |
| 9/29 | --- | --- | --- | 0 | --- | --- | --- | 0 | 100.2 | 100.6 | 100.9 | 24 | --- | --- | --- | 0 | 99.3 | 99.5 | 99.9 | 24 |
| 9/30 | --- | --- | --- | 0 | --- | --- | --- | 0 | 100.0 | 100.5 | 101.4 | 24 | --- | --- | --- | 0 | 97.9 | 98.3 | 98.5 | 24 |
| 10/1 | --- | --- | --- | 0 | --- | --- | --- | 0 | 99.1 | 99.4 | 100.3 | 24 | --- | --- | --- | 0 | 97.8 | 98.3 | 98.6 | 24 |
| 10/2 | --- | --- | --- | 0 | --- | --- | --- | 0 | 98.0 | 98.3 | 98.7 | 24 | --- | --- | --- | 0 | 97.9 | 98.1 | 98.5 | 24 |
| 10/3 | --- | --- | --- | 0 | --- | --- | --- | 0 | 97.5 | 97.9 | 98.1 | 24 | --- | --- | --- | 0 | 97.7 | 98.2 | 98.7 | 24 |
| 10/4 | --- | --- | --- | 0 | --- | --- | --- | 0 | 97.9 | 98.2 | 98.5 | 24 | --- | --- | --- | 0 | 98.4 | 98.8 | 99.3 | 24 |
| 10/5 | --- | --- | --- | 0 | --- | --- | --- | 0 | 97.7 | 98.0 | 98.4 | 24 | --- | --- | --- | 0 | 98.0 | 98.3 | 98.6 | 24 |
| 10/6 | --- | --- | --- | 0 | --- | --- | --- | 0 | 96.8 | 97.0 | 97.2 | 24 | --- | --- | --- | 0 | 97.7 | 98.0 | 98.5 | 24 |
| 10/7 | --- | --- | --- | 0 | --- | --- | --- | 0 | 96.7 | 97.0 | 97.6 | 24 | --- | --- | --- | 0 | 97.7 | 98.1 | 98.6 | 24 |
| 10/8 | --- | --- | --- | 0 | --- | --- | --- | 0 | 95.6 | 95.9 | 96.1 | 24 | --- | --- | --- | 0 | 97.5 | 97.7 | 98.0 | 24 |
| 10/9 | --- | --- | --- | 0 | --- | --- | --- | 0 | 96.1 | 96.7 | 97.1 | 23 | --- | --- | --- | 0 | 98.4 | 99.3 | 99.9 | 23 |

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

| Date | <u>Lower Mon.</u> | | | <u>L. Mon. Tlwr</u> | | | <u>Ice Harbor</u> | | | <u>Ice Harbor Tlwr</u> | | | <u>McNary-Oregon</u> | | | | | | | |
|------|-------------------|-------------|-------------|---------------------|-------------|------------|-------------------|-------------|------------|------------------------|-------------|-----------|----------------------|-------------|-------------|-----------|-----|-----|-----|---|
| | <u>24 h</u> | <u>12 h</u> | <u>#</u> | <u>24 h</u> | <u>12 h</u> | <u>#</u> | <u>24 h</u> | <u>12 h</u> | <u>#</u> | <u>24 h</u> | <u>12 h</u> | <u>#</u> | <u>24 h</u> | <u>12 h</u> | <u>#</u> | | | | | |
| | <u>Avg</u> | <u>Avg</u> | <u>High</u> | <u>hr</u> | <u>Avg</u> | <u>Avg</u> | <u>High</u> | <u>hr</u> | <u>Avg</u> | <u>Avg</u> | <u>High</u> | <u>hr</u> | <u>Avg</u> | <u>Avg</u> | <u>High</u> | <u>hr</u> | | | | |
| 9/26 | --- | --- | --- | 0 | 98.0 | 98.4 | 99.6 | 24 | --- | --- | --- | 0 | 100.6 | 101.2 | 102.1 | 24 | --- | --- | --- | 0 |
| 9/27 | --- | --- | --- | 0 | 98.4 | 98.9 | 99.6 | 24 | --- | --- | --- | 0 | 99.8 | 100.7 | 102.0 | 24 | --- | --- | --- | 0 |
| 9/28 | --- | --- | --- | 0 | 98.7 | 99.3 | 99.9 | 24 | --- | --- | --- | 0 | 98.9 | 99.6 | 100.7 | 24 | --- | --- | --- | 0 |
| 9/29 | --- | --- | --- | 0 | 98.1 | 98.6 | 99.3 | 24 | --- | --- | --- | 0 | 99.4 | 100.1 | 101.1 | 24 | --- | --- | --- | 0 |
| 9/30 | --- | --- | --- | 0 | 97.8 | 98.3 | 99.3 | 24 | --- | --- | --- | 0 | 98.3 | 98.9 | 99.7 | 24 | --- | --- | --- | 0 |
| 10/1 | --- | --- | --- | 0 | 97.6 | 98.1 | 99.3 | 24 | --- | --- | --- | 0 | 98.3 | 99.0 | 100.2 | 24 | --- | --- | --- | 0 |
| 10/2 | --- | --- | --- | 0 | 97.3 | 97.7 | 97.9 | 24 | --- | --- | --- | 0 | 98.4 | 99.2 | 100.1 | 24 | --- | --- | --- | 0 |
| 10/3 | --- | --- | --- | 0 | 97.7 | 98.1 | 98.4 | 24 | --- | --- | --- | 0 | 98.0 | 98.5 | 99.0 | 24 | --- | --- | --- | 0 |
| 10/4 | --- | --- | --- | 0 | 97.3 | 97.8 | 98.7 | 24 | --- | --- | --- | 0 | 98.5 | 99.3 | 100.7 | 24 | --- | --- | --- | 0 |
| 10/5 | --- | --- | --- | 0 | 97.1 | 97.6 | 99.7 | 24 | --- | --- | --- | 0 | 98.8 | 99.5 | 100.3 | 24 | --- | --- | --- | 0 |
| 10/6 | --- | --- | --- | 0 | 97.6 | 98.3 | 98.6 | 24 | --- | --- | --- | 0 | 99.1 | 99.7 | 100.5 | 24 | --- | --- | --- | 0 |
| 10/7 | --- | --- | --- | 0 | 97.9 | 98.6 | 99.3 | 24 | --- | --- | --- | 0 | 99.4 | 100.4 | 101.1 | 24 | --- | --- | --- | 0 |
| 10/8 | --- | --- | --- | 0 | 98.4 | 98.9 | 101.0 | 24 | --- | --- | --- | 0 | 99.2 | 99.9 | 100.5 | 24 | --- | --- | --- | 0 |
| 10/9 | --- | --- | --- | 0 | 98.2 | 98.8 | 99.7 | 23 | --- | --- | --- | 0 | 99.8 | 100.7 | 101.7 | 23 | --- | --- | --- | 0 |

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

Total Dissolved Gas Saturation Data at Lower Columbia River Sites

| Date | <u>McNary-Wash</u> | | | <u>McNary Tlwr</u> | | | <u>John Day</u> | | | <u>John Day Tlwr</u> | | | <u>The Dalles</u> | | | | | | | |
|------|--------------------|-------------|-------------|--------------------|-------------|-------------|-----------------|-----------|------------|----------------------|-------------|-----------|-------------------|------------|-------------|----------|-----------|------------|-----|---|
| | <u>24 h</u> | <u>12 h</u> | <u>High</u> | <u>#</u> | <u>24 h</u> | <u>12 h</u> | <u>High</u> | <u>#</u> | <u>24h</u> | <u>12h</u> | <u>High</u> | <u>#</u> | <u>24h</u> | <u>12h</u> | <u>High</u> | <u>#</u> | | | | |
| | <u>Avg</u> | <u>Avg</u> | | <u>hr</u> | <u>Avg</u> | <u>Avg</u> | | <u>hr</u> | <u>Avg</u> | <u>Avg</u> | | <u>hr</u> | <u>Avg</u> | <u>Avg</u> | | | <u>hr</u> | <u>AVG</u> | | |
| 9/26 | --- | --- | --- | 0 | 100.3 | 100.6 | 100.9 | 24 | --- | --- | --- | 0 | 98.4 | 98.7 | 99.1 | 24 | --- | --- | --- | 0 |
| 9/27 | --- | --- | --- | 0 | 100.1 | 100.4 | 100.6 | 24 | --- | --- | --- | 0 | 98.2 | 98.6 | 99.2 | 24 | --- | --- | --- | 0 |
| 9/28 | --- | --- | --- | 0 | 100.4 | 100.8 | 101.1 | 24 | --- | --- | --- | 0 | 98.4 | 99.1 | 99.6 | 24 | --- | --- | --- | 0 |
| 9/29 | --- | --- | --- | 0 | 100.5 | 100.8 | 101.1 | 24 | --- | --- | --- | 0 | 98.9 | 99.5 | 99.9 | 24 | --- | --- | --- | 0 |
| 9/30 | --- | --- | --- | 0 | 99.2 | 99.5 | 99.7 | 24 | --- | --- | --- | 0 | 99.3 | 99.9 | 100.3 | 24 | --- | --- | --- | 0 |
| 10/1 | --- | --- | --- | 0 | 98.8 | 99.2 | 99.9 | 24 | --- | --- | --- | 0 | 98.5 | 99.1 | 99.5 | 24 | --- | --- | --- | 0 |
| 10/2 | --- | --- | --- | 0 | 98.4 | 98.6 | 98.8 | 24 | --- | --- | --- | 0 | 98.1 | 98.3 | 98.8 | 24 | --- | --- | --- | 0 |
| 10/3 | --- | --- | --- | 0 | 98.5 | 98.9 | 99.2 | 24 | --- | --- | --- | 0 | 97.8 | 98.1 | 98.3 | 24 | --- | --- | --- | 0 |
| 10/4 | --- | --- | --- | 0 | 98.6 | 98.9 | 99.3 | 24 | --- | --- | --- | 0 | 98.2 | 99.1 | 99.7 | 24 | --- | --- | --- | 0 |
| 10/5 | --- | --- | --- | 0 | 98.8 | 99.2 | 99.4 | 24 | --- | --- | --- | 0 | 98.9 | 99.4 | 99.7 | 24 | --- | --- | --- | 0 |
| 10/6 | --- | --- | --- | 0 | 99.6 | 100.2 | 100.4 | 24 | --- | --- | --- | 0 | 98.2 | 98.4 | 98.7 | 24 | --- | --- | --- | 0 |
| 10/7 | --- | --- | --- | 0 | 100.4 | 100.8 | 101.2 | 24 | --- | --- | --- | 0 | 97.6 | 98.0 | 98.4 | 24 | --- | --- | --- | 0 |
| 10/8 | --- | --- | --- | 0 | 100.8 | 101.0 | 101.4 | 24 | --- | --- | --- | 0 | 97.7 | 98.2 | 98.8 | 24 | --- | --- | --- | 0 |
| 10/9 | --- | --- | --- | 0 | 100.9 | 101.4 | 101.9 | 23 | --- | --- | --- | 0 | 97.4 | 98.2 | 98.7 | 23 | --- | --- | --- | 0 |

Total Dissolved Gas Saturation Data at Lower Columbia River Sites

| Date | <u>The Dalles Dnst</u> | | | <u>Bonneville</u> | | | <u>Warrendale</u> | | | <u>Camas\Washougal</u> | | | <u>Cascade Island</u> | | | | | | | |
|------|------------------------|-------------|-------------|-------------------|-------------|-------------|-------------------|-----------|------------|------------------------|-------------|-----------|-----------------------|------------|-------------|----------|-----------|------------|-----|---|
| | <u>24 h</u> | <u>12 h</u> | <u>High</u> | <u>#</u> | <u>24 h</u> | <u>12 h</u> | <u>High</u> | <u>#</u> | <u>24h</u> | <u>12h</u> | <u>High</u> | <u>#</u> | <u>24h</u> | <u>12h</u> | <u>High</u> | <u>#</u> | | | | |
| | <u>Avg</u> | <u>Avg</u> | | <u>hr</u> | <u>Avg</u> | <u>Avg</u> | | <u>hr</u> | <u>Avg</u> | <u>Avg</u> | | <u>hr</u> | <u>Avg</u> | <u>Avg</u> | | | <u>hr</u> | <u>AVG</u> | | |
| 9/26 | 100.8 | 101.0 | 101.2 | 24 | --- | --- | --- | 0 | 103.4 | 103.8 | 104.1 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 9/27 | 101.4 | 101.8 | 102.1 | 24 | --- | --- | --- | 0 | 102.9 | 103.0 | 103.3 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 9/28 | 101.8 | 102.5 | 102.9 | 24 | --- | --- | --- | 0 | 103.1 | 103.7 | 104.1 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 9/29 | 101.9 | 102.2 | 102.6 | 24 | --- | --- | --- | 0 | 102.9 | 103.1 | 103.4 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 9/30 | 101.2 | 101.4 | 101.6 | 24 | --- | --- | --- | 0 | 102.4 | 102.7 | 103.1 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/1 | 100.8 | 101.1 | 101.4 | 24 | --- | --- | --- | 0 | 102.5 | 103.0 | 103.5 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/2 | 100.6 | 100.8 | 100.9 | 24 | --- | --- | --- | 0 | 101.5 | 102.1 | 102.7 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/3 | 100.4 | 100.8 | 101.0 | 24 | --- | --- | --- | 0 | 101.6 | 102.0 | 102.3 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/4 | 101.1 | 101.7 | 101.8 | 24 | --- | --- | --- | 0 | 102.5 | 102.9 | 103.5 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/5 | 101.6 | 101.9 | 102.1 | 24 | --- | --- | --- | 0 | 103.5 | 104.3 | 104.9 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/6 | 101.9 | 102.2 | 102.4 | 24 | --- | --- | --- | 0 | 104.9 | 105.7 | 107.1 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/7 | 101.9 | 102.2 | 102.4 | 24 | --- | --- | --- | 0 | 104.3 | 104.8 | 105.5 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/8 | 101.4 | 101.6 | 101.7 | 24 | --- | --- | --- | 0 | 104.3 | 104.6 | 104.7 | 24 | --- | --- | --- | 0 | --- | --- | --- | 0 |
| 10/9 | 101.2 | 101.6 | 102.0 | 23 | --- | --- | --- | 0 | 104.1 | 104.8 | 105.7 | 23 | --- | --- | --- | 0 | --- | --- | --- | 0 |

Two-Week Summary of Passage Indices

Source: Fish Passage Center

Updated: 10/10/2014 7:15

Two-Week Summary of Passage Indices

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

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

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

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

| COMBINED YEARLING CHINOOK | | | | | | | | | | | |
|---------------------------|---------------|---------------|---------------|---------------|------------------|------------------|------------------|----------------|------------------|------------------|------------------|
| Date | WTB (Coll) | IMN (Coll) | GRN (Coll) | LEW (Coll) | LGR (INDEX) | LGS (INDEX) | LMN (INDEX) | RIS (INDEX) | MCN (INDEX) | JDA (INDEX) | BO2 (INDEX) |
| 09/26/2014 * | --- | --- | --- | --- | 0 | 0 | --- | --- | 0 | --- | 0 |
| 09/27/2014 * | --- | --- | --- | --- | 0 | 1 | 0 | --- | --- | --- | 0 |
| 09/28/2014 * | --- | --- | --- | --- | 0 | 0 | --- | --- | 0 | --- | 0 |
| 09/29/2014 * | --- | --- | --- | --- | 0 | 0 | 0 | --- | --- | --- | 0 |
| 09/30/2014 * | --- | --- | --- | --- | 0 | 0 | --- | --- | 0 | --- | 0 |
| 10/01/2014 | --- | --- | --- | --- | 0 | 1 | 0 | --- | --- | --- | 0 |
| 10/02/2014 | --- | --- | --- | --- | 0 | 0 | --- | --- | --- | --- | 0 |
| 10/03/2014 * | --- | --- | --- | --- | 0 | 0 | --- | --- | --- | --- | 0 |
| 10/04/2014 * | --- | --- | --- | --- | 0 | 0 | --- | --- | --- | --- | 0 |
| 10/05/2014 | --- | --- | --- | --- | 0 | 1 | --- | --- | --- | --- | 0 |
| 10/06/2014 | --- | --- | --- | --- | 0 | 0 | --- | --- | --- | --- | 0 |
| 10/07/2014 | --- | --- | --- | --- | 0 | 0 | --- | --- | --- | --- | 0 |
| 10/08/2014 | --- | --- | --- | --- | 0 | 1 | --- | --- | --- | --- | 0 |
| 10/09/2014 | --- | --- | --- | --- | 0 | 0 | --- | --- | --- | --- | 0 |
| 10/10/2014 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Total: | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 |
| # Days: | 0 | 0 | 0 | 0 | 14 | 14 | 3 | 0 | 3 | 0 | 14 |
| Average: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| YTD | 65,404 | 63,591 | 25,420 | 10,159 | 4,807,475 | 2,838,742 | 1,969,634 | 26,427 | 2,022,048 | 2,329,081 | 2,151,268 |

| COMBINED SUBYEARLING CHINOOK | | | | | | | | | | | |
|------------------------------|---------------|---------------|---------------|---------------|----------------|------------------|----------------|----------------|------------------|------------------|------------------|
| Date | WTB (Coll) | IMN (Coll) | GRN (Coll) | LEW (Coll) | LGR (INDEX) | LGS (INDEX) | LMN (INDEX) | RIS (INDEX) | MCN (INDEX) | JDA (INDEX) | BO2 (INDEX) |
| 09/26/2014 * | --- | --- | --- | --- | 39 | 23 | --- | --- | 108 | --- | 102 |
| 09/27/2014 * | --- | --- | --- | --- | 35 | 8 | 2 | --- | --- | --- | 22 |
| 09/28/2014 * | --- | --- | --- | --- | 13 | 7 | --- | --- | 68 | --- | 31 |
| 09/29/2014 * | --- | --- | --- | --- | 24 | 6 | 5 | --- | --- | --- | 92 |
| 09/30/2014 * | --- | --- | --- | --- | 14 | 8 | --- | --- | 48 | --- | 77 |
| 10/01/2014 | --- | --- | --- | --- | 59 | 3 | 6 | --- | --- | --- | 139 |
| 10/02/2014 | --- | --- | --- | --- | 35 | 1 | --- | --- | --- | --- | 95 |
| 10/03/2014 * | --- | --- | --- | --- | 18 | 9 | --- | --- | --- | --- | 163 |
| 10/04/2014 * | --- | --- | --- | --- | 66 | 5 | --- | --- | --- | --- | 147 |
| 10/05/2014 | --- | --- | --- | --- | 111 | 8 | --- | --- | --- | --- | 44 |
| 10/06/2014 | --- | --- | --- | --- | 181 | 5 | --- | --- | --- | --- | 32 |
| 10/07/2014 | --- | --- | --- | --- | 289 | 5 | --- | --- | --- | --- | 79 |
| 10/08/2014 | --- | --- | --- | --- | 419 | 11 | --- | --- | --- | --- | 55 |
| 10/09/2014 | --- | --- | --- | --- | 380 | 8 | --- | --- | --- | --- | 71 |
| 10/10/2014 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Total: | 0 | 0 | 0 | 0 | 1,683 | 107 | 13 | 0 | 224 | 0 | 1,149 |
| # Days: | 0 | 0 | 0 | 0 | 14 | 14 | 3 | 0 | 3 | 0 | 14 |
| Average: | 0 | 0 | 0 | 0 | 120 | 8 | 4 | 0 | 75 | 0 | 82 |
| YTD | 0 | 27 | 4 | 332 | 950,407 | 1,048,211 | 381,217 | 38,664 | 4,914,830 | 2,591,935 | 4,235,411 |

Two-Week Summary of Passage Indices

| COMBINED COHO | | | | | | | | | | | | |
|-----------------|---------------|---------------|---------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|--|
| Date | WTB (Coll) | IMN (Coll) | GRN (Coll) | LEW (Coll) | LGR (INDEX) | LGS (INDEX) | LMN (INDEX) | RIS (INDEX) | MCN (INDEX) | JDA (INDEX) | BO2 (INDEX) | |
| 09/26/2014 * | --- | --- | --- | --- | 0 | 0 | --- | --- | 0 | --- | 0 | |
| 09/27/2014 * | --- | --- | --- | --- | 0 | 0 | 0 | --- | --- | --- | 0 | |
| 09/28/2014 * | --- | --- | --- | --- | 0 | 0 | --- | --- | 0 | --- | 0 | |
| 09/29/2014 * | --- | --- | --- | --- | 0 | 0 | 0 | --- | --- | --- | 0 | |
| 09/30/2014 * | --- | --- | --- | --- | 0 | 0 | --- | --- | 0 | --- | 0 | |
| 10/01/2014 | --- | --- | --- | --- | 0 | 0 | 0 | --- | --- | --- | 0 | |
| 10/02/2014 | --- | --- | --- | --- | 0 | 0 | --- | --- | --- | --- | 0 | |
| 10/03/2014 * | --- | --- | --- | --- | 0 | 0 | --- | --- | --- | --- | 0 | |
| 10/04/2014 * | --- | --- | --- | --- | 1 | 0 | --- | --- | --- | --- | 0 | |
| 10/05/2014 | --- | --- | --- | --- | 0 | 0 | --- | --- | --- | --- | 0 | |
| 10/06/2014 | --- | --- | --- | --- | 0 | 0 | --- | --- | --- | --- | 0 | |
| 10/07/2014 | --- | --- | --- | --- | 0 | 0 | --- | --- | --- | --- | 0 | |
| 10/08/2014 | --- | --- | --- | --- | 0 | 0 | --- | --- | --- | --- | 0 | |
| 10/09/2014 | --- | --- | --- | --- | 0 | 0 | --- | --- | --- | --- | 0 | |
| 10/10/2014 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |
| Total: | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | |
| # Days: | 0 | 0 | 0 | 0 | 14 | 14 | 3 | 0 | 3 | 0 | 14 | |
| Average: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| YTD | 0 | 0 | 0 | 267 | 74,171 | 59,431 | 27,316 | 66,433 | 147,455 | 225,431 | 776,651 | |

| COMBINED STEELHEAD | | | | | | | | | | | | |
|--------------------|---------------|---------------|---------------|---------------|------------------|------------------|------------------|----------------|----------------|------------------|----------------|--|
| Date | WTB (Coll) | IMN (Coll) | GRN (Coll) | LEW (Coll) | LGR (INDEX) | LGS (INDEX) | LMN (INDEX) | RIS (INDEX) | MCN (INDEX) | JDA (INDEX) | BO2 (INDEX) | |
| 09/26/2014 * | --- | --- | --- | --- | 2 | 0 | --- | --- | 0 | --- | 0 | |
| 09/27/2014 * | --- | --- | --- | --- | 1 | 0 | 0 | --- | --- | --- | 0 | |
| 09/28/2014 * | --- | --- | --- | --- | 0 | 0 | --- | --- | 0 | --- | 0 | |
| 09/29/2014 * | --- | --- | --- | --- | 0 | 0 | 0 | --- | --- | --- | 0 | |
| 09/30/2014 * | --- | --- | --- | --- | 0 | 0 | --- | --- | 0 | --- | 0 | |
| 10/01/2014 | --- | --- | --- | --- | 0 | 0 | 1 | --- | --- | --- | 0 | |
| 10/02/2014 | --- | --- | --- | --- | 1 | 0 | --- | --- | --- | --- | 0 | |
| 10/03/2014 * | --- | --- | --- | --- | 1 | 0 | --- | --- | --- | --- | 0 | |
| 10/04/2014 * | --- | --- | --- | --- | 2 | 0 | --- | --- | --- | --- | 0 | |
| 10/05/2014 | --- | --- | --- | --- | 0 | 0 | --- | --- | --- | --- | 0 | |
| 10/06/2014 | --- | --- | --- | --- | 0 | 0 | --- | --- | --- | --- | 0 | |
| 10/07/2014 | --- | --- | --- | --- | 0 | 0 | --- | --- | --- | --- | 0 | |
| 10/08/2014 | --- | --- | --- | --- | 0 | 0 | --- | --- | --- | --- | 0 | |
| 10/09/2014 | --- | --- | --- | --- | 0 | 0 | --- | --- | --- | --- | 0 | |
| 10/10/2014 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |
| Total: | 0 | 0 | 0 | 0 | 7 | 0 | 1 | 0 | 0 | 0 | 0 | |
| # Days: | 0 | 0 | 0 | 0 | 14 | 14 | 3 | 0 | 3 | 0 | 14 | |
| Average: | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | |
| YTD | 2,080 | 43,465 | 4,243 | 12,842 | 3,376,205 | 1,975,623 | 1,183,219 | 27,522 | 586,885 | 1,037,142 | 459,444 | |

Two-Week Summary of Passage Indices

| COMBINED SOCKEYE | | | | | | | | | | | | |
|------------------|---------------|---------------|---------------|---------------|----------------|----------------|----------------|----------------|----------------|------------------|----------------|----------------|
| Date | WTB (Coll) | IMN (Coll) | GRN (Coll) | LEW (Coll) | LGR (INDEX) | LGS (INDEX) | LMN (INDEX) | RIS (INDEX) | MCN (INDEX) | JDA (INDEX) | BO2 (INDEX) | |
| 09/26/2014 | * | --- | --- | --- | --- | 0 | 0 | --- | --- | 0 | --- | 0 |
| 09/27/2014 | * | --- | --- | --- | --- | 1 | 1 | 0 | --- | --- | --- | 0 |
| 09/28/2014 | * | --- | --- | --- | --- | 0 | 0 | --- | --- | 0 | --- | 0 |
| 09/29/2014 | * | --- | --- | --- | --- | 0 | 0 | 0 | --- | --- | --- | 0 |
| 09/30/2014 | * | --- | --- | --- | --- | 0 | 0 | --- | --- | 0 | --- | 0 |
| 10/01/2014 | | --- | --- | --- | --- | 0 | 2 | 0 | --- | --- | --- | 0 |
| 10/02/2014 | | --- | --- | --- | --- | 0 | 0 | --- | --- | --- | --- | 0 |
| 10/03/2014 | * | --- | --- | --- | --- | 0 | 3 | --- | --- | --- | --- | 0 |
| 10/04/2014 | * | --- | --- | --- | --- | 0 | 0 | --- | --- | --- | --- | 0 |
| 10/05/2014 | | --- | --- | --- | --- | 1 | 0 | --- | --- | --- | --- | 0 |
| 10/06/2014 | | --- | --- | --- | --- | 0 | 1 | --- | --- | --- | --- | 0 |
| 10/07/2014 | | --- | --- | --- | --- | 2 | 0 | --- | --- | --- | --- | 0 |
| 10/08/2014 | | --- | --- | --- | --- | 3 | 1 | --- | --- | --- | --- | 0 |
| 10/09/2014 | | --- | --- | --- | --- | 0 | 1 | --- | --- | --- | --- | 0 |
| 10/10/2014 | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Total: | | 0 | 0 | 0 | 0 | 7 | 9 | 0 | 0 | 0 | 0 | 0 |
| # Days: | | 0 | 0 | 0 | 0 | 14 | 14 | 3 | 0 | 3 | 0 | 14 |
| Average: | | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| YTD | | 0 | 0 | 2 | 0 | 182,071 | 88,467 | 69,805 | 37,962 | 1,495,582 | 578,093 | 590,103 |

| COMBINED LAMPREY JUVENILES | | | | | | | | | | | | |
|----------------------------|---------------|---------------|---------------|---------------|----------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Date | WTB (Coll) | IMN (Coll) | GRN (Coll) | LEW (Coll) | LGR [†] (Samp) | LGS (Coll) | LMN (Coll) | RIS (Coll) | MCN (Coll) | JDA (Coll) | BO2 (Coll) | |
| 09/26/2014 | * | --- | --- | --- | --- | 1 | 1 | --- | 12 | --- | --- | 0 |
| 09/27/2014 | * | --- | --- | --- | --- | 0 | 3 | 2 | --- | --- | --- | 0 |
| 09/28/2014 | * | --- | --- | --- | --- | 0 | 3 | --- | 0 | --- | --- | 0 |
| 09/29/2014 | * | --- | --- | --- | --- | 0 | 6 | 1 | --- | --- | --- | 0 |
| 09/30/2014 | * | --- | --- | --- | --- | 2 | 1 | --- | 0 | --- | --- | 0 |
| 10/01/2014 | | --- | --- | --- | --- | 0 | 1 | 1 | --- | --- | --- | 10 |
| 10/02/2014 | | --- | --- | --- | --- | 0 | 3 | --- | --- | --- | --- | 0 |
| 10/03/2014 | * | --- | --- | --- | --- | 0 | 1 | --- | --- | --- | --- | 10 |
| 10/04/2014 | * | --- | --- | --- | --- | 0 | 3 | --- | --- | --- | --- | 0 |
| 10/05/2014 | | --- | --- | --- | --- | 1 | 0 | --- | --- | --- | --- | 0 |
| 10/06/2014 | | --- | --- | --- | --- | 2 | 1 | --- | --- | --- | --- | 0 |
| 10/07/2014 | | --- | --- | --- | --- | 0 | 2 | --- | --- | --- | --- | 0 |
| 10/08/2014 | | --- | --- | --- | --- | 0 | 2 | --- | --- | --- | --- | 0 |
| 10/09/2014 | | --- | --- | --- | --- | 1 | 1 | --- | --- | --- | --- | 0 |
| 10/10/2014 | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Total: | | 0 | 0 | 0 | 0 | 7 | 28 | 4 | 12 | 0 | 0 | 20 |
| # Days: | | 0 | 0 | 0 | 0 | 14 | 14 | 3 | 0 | 3 | 0 | 14 |
| Average: | | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 0 | 4 | 0 | 1 |
| YTD | | 1 | 3 | 0 | 0 | 192 | 21,108 | 29,509 | 220 | 60,713 | 98,903 | 19,359 |

Two-Week Summary of Passage Indices

* 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, sockeye, and lamprey juveniles. Two classes of fish counts are shown in these tables:

Two classes of fish counts are shown in these tables:

Sample counts (Samp) are provided for juvenile lamprey at LGR. See note below for details †.

Collection counts (Coll), which account for sample rates but are not adjusted for flow;

Passage indices (INDEX), 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.

Combined lamprey juvenile collection counts are provided for all sites. Combined lamprey juveniles is a combination of pacific lamprey ammocoetes, brook lamprey ammocoetes, unknown lamprey ammocoetes, pacific lamprey macrophthalmia, and unidentified lamprey species.

† In 2013 it was confirmed that juvenile lamprey can escape the sample tank at LGR which would lead to unreliable estimates of collection. Therefore, only sample counts are provided in this report.

Definitions for Smolt Index Counts

WTB (Collection) = Salmon River Trap at Whitebird : Collection Counts

IMN (Collection) = Imnaha River Trap : Collection Counts

GRN (Collection) = Grande Ronde River Trap : Collection Counts

LEW (Collection) = Snake River Trap at Lewiston : Collection Counts

LGR (Index) = Lower Granite Dam Bypass Collection System : Passage Index Counts

Passage Index = Collection Counts / {Powerhouse Flow / (Powerhouse Flow + Spill)}

LGS (Index) = Little Goose Bypass Collection System : Passage Index Counts

Passage Index = Collection Counts / {Powerhouse Flow / (Powerhouse Flow + Spill)}

LMN (Index) = Lower Monumental Dam Bypass Collection System : Passage Index Counts

Passage Index = Collection Counts / {Powerhouse Flow / (Powerhouse Flow + Spill)}

RIS (Index) = Rock Island Dam Second Powerhouse Bypass Trap : Passage Index Counts

Passage Index = Collection Counts / {Powerhouse 2 Flow / (Powerhouse 1 & 2 Flow + Spill)}

MCN (Index) = McNary Dam Bypass Collection System : Passage Index Counts

Passage Index = Collection Counts / {Powerhouse Flow / (Powerhouse Flow + Spill)}

JDA (Index) = John Day Dam Bypass Collection System : Passage Index Counts

Passage Index = Collection Counts / {Powerhouse Flow / (Powerhouse Flow + Spill)}

BO2 (Index) = Bonneville Dam Second Powerhouse Bypass Collection System : Passage Index Counts

Passage Index = Collection Counts / {Powerhouse 2 Flow / (Powerhouse 1 & 2 Flow + Spill)}

JDA and BO2 data collected for the FPC by Pacific States Marine Fisheries Commission.

RIS data collected for the FPC by Chelan Co. PUD.

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.

Fall (post SMP season) trapping at the Imnaha River Fish Trap (IMN) is funded by the Lower Snake River Compensation Program (LSRCP)

WTB and LEW data collected for the FPC by Idaho Dept. of Fish and Game.

Two Week Transportation Summary

Source: Fish Passage Center

Updated:

10/10/14 7:12 AM

09/26/14 TO 10/10/14

| | | Species | | | | | | |
|--------------------------------|--------------------------|---------|-----|----|----|----|-------------|-------|
| Site | Data | CH0 | CH1 | CO | ST | SO | Grand Total | |
| LGR | Sum of NumberCollected | 1,683 | | | 1 | 7 | 7 | 1,698 |
| | Sum of NumberBarged | 0 | | | 0 | 0 | 0 | 0 |
| | Sum of NumberBypassed | 0 | | | 0 | 7 | 0 | 7 |
| | Sum of Numbertrucked | 1,659 | | | 1 | 0 | 7 | 1,667 |
| | Sum of SampleMorts | 24 | | | 0 | 0 | 0 | 24 |
| | Sum of FacilityMorts | 0 | | | 0 | 0 | 0 | 0 |
| | Sum of ResearchMorts | 0 | | | 0 | 0 | 0 | 0 |
| | Sum of TotalProjectMorts | 24 | | | 0 | 0 | 0 | 24 |
| LGS | Sum of NumberCollected | 107 | 4 | | | | 9 | 120 |
| | Sum of NumberBarged | 0 | 0 | | | | 0 | 0 |
| | Sum of NumberBypassed | 0 | 0 | | | | 0 | 0 |
| | Sum of Numbertrucked | 98 | 4 | | | | 9 | 111 |
| | Sum of SampleMorts | 7 | 0 | | | | 0 | 7 |
| | Sum of FacilityMorts | 2 | 0 | | | | 0 | 2 |
| | Sum of ResearchMorts | 0 | 0 | | | | 0 | 0 |
| | Sum of TotalProjectMorts | 9 | 0 | | | | 0 | 9 |
| LMN | Sum of NumberCollected | 13 | | | | 1 | | 14 |
| | Sum of NumberBarged | 0 | | | | 0 | | 0 |
| | Sum of NumberBypassed | 0 | | | | 0 | | 0 |
| | Sum of Numbertrucked | 13 | | | | 1 | | 14 |
| | Sum of SampleMorts | 0 | | | | 0 | | 0 |
| | Sum of FacilityMorts | 0 | | | | 0 | | 0 |
| | Sum of ResearchMorts | 0 | | | | 0 | | 0 |
| | Sum of TotalProjectMorts | 0 | | | | 0 | | 0 |
| Total Sum of NumberCollected | | 1,803 | 4 | | 1 | 8 | 16 | 1,832 |
| Total Sum of NumberBarged | | 0 | 0 | | 0 | 0 | 0 | 0 |
| Total Sum of NumberBypassed | | 0 | 0 | | 0 | 7 | 0 | 7 |
| Total Sum of Numbertrucked | | 1,770 | 4 | | 1 | 1 | 16 | 1,792 |
| Total Sum of SampleMorts | | 31 | 0 | | 0 | 0 | 0 | 31 |
| Total Sum of FacilityMorts | | 2 | 0 | | 0 | 0 | 0 | 2 |
| Total Sum of ResearchMorts | | 0 | 0 | | 0 | 0 | 0 | 0 |
| Total Sum of TotalProjectMorts | | 33 | 0 | | 0 | 0 | 0 | 33 |

YTD Transportation Summary

Source: Fish Passage Center

Updated:

10/10/14 7:12 AM

TO: 10/10/14

| | | Species | | | | | |
|--------------------------------|--------------------------|-----------|-----------|---------|---------|-----------|-------------|
| Site | Data | CH0 | CH1 | CO | SO | ST | Grand Total |
| LGR | Sum of NumberCollected | 647,386 | 3,442,339 | 52,724 | 130,986 | 2,404,256 | 6,677,691 |
| | Sum of NumberBarged | 622,537 | 1,939,440 | 48,991 | 70,855 | 1,326,856 | 4,008,679 |
| | Sum of NumberBypassed | 11,727 | 1,501,375 | 3,722 | 59,638 | 1,077,112 | 2,653,574 |
| | Sum of NumberTrucked | 11,045 | 1 | 2 | 31 | 0 | 11,079 |
| | Sum of SampleMorts | 520 | 139 | 1 | 47 | 60 | 767 |
| | Sum of FacilityMorts | 1,547 | 1,305 | 8 | 415 | 121 | 3,396 |
| | Sum of ResearchMorts | 10 | 79 | 0 | 0 | 107 | 196 |
| | Sum of TotalProjectMorts | 2,077 | 1,523 | 9 | 462 | 288 | 4,359 |
| LGS | Sum of NumberCollected | 739,641 | 1,951,723 | 41,832 | 61,261 | 1,369,633 | 4,164,090 |
| | Sum of NumberBarged | 731,173 | 1,768,377 | 40,932 | 54,864 | 1,149,468 | 3,744,814 |
| | Sum of NumberBypassed | 324 | 182,657 | 890 | 6,110 | 220,103 | 410,084 |
| | Sum of NumberTrucked | 6,507 | 4 | 0 | 25 | 9 | 6,545 |
| | Sum of SampleMorts | 246 | 34 | 1 | 25 | 16 | 322 |
| | Sum of FacilityMorts | 1,391 | 651 | 9 | 237 | 167 | 2,455 |
| | Sum of ResearchMorts | 0 | 0 | 0 | 0 | 0 | 0 |
| | Sum of TotalProjectMorts | 1,637 | 685 | 10 | 262 | 183 | 2,777 |
| LMN | Sum of NumberCollected | 258,406 | 1,326,227 | 19,905 | 48,376 | 792,155 | 2,445,069 |
| | Sum of NumberBarged | 253,846 | 1,138,579 | 17,505 | 45,110 | 686,179 | 2,141,219 |
| | Sum of NumberBypassed | 616 | 177,066 | 0 | 2,568 | 89,957 | 270,207 |
| | Sum of NumberTrucked | 1,767 | 5 | 0 | 2 | 13 | 1,787 |
| | Sum of SampleMorts | 236 | 25 | 0 | 1 | 17 | 279 |
| | Sum of FacilityMorts | 541 | 964 | 0 | 301 | 193 | 1,999 |
| | Sum of ResearchMorts | 0 | 0 | 0 | 0 | 0 | 0 |
| | Sum of TotalProjectMorts | 777 | 989 | 0 | 302 | 210 | 2,278 |
| Total Sum of NumberCollected | | 1,645,433 | 6,720,289 | 114,461 | 240,623 | 4,566,044 | 13,286,850 |
| Total Sum of NumberBarged | | 1,607,556 | 4,846,396 | 107,428 | 170,829 | 3,162,503 | 9,894,712 |
| Total Sum of NumberBypassed | | 12,667 | 1,861,098 | 4,612 | 68,316 | 1,387,172 | 3,333,865 |
| Total Sum of NumberTrucked | | 19,319 | 10 | 2 | 58 | 22 | 19,411 |
| Total Sum of SampleMorts | | 1,002 | 198 | 2 | 73 | 93 | 1,368 |
| Total Sum of FacilityMorts | | 3,479 | 2,920 | 17 | 953 | 481 | 7,850 |
| Total Sum of ResearchMorts | | 10 | 79 | 0 | 0 | 107 | 196 |
| Total Sum of TotalProjectMorts | | 4,491 | 3,197 | 19 | 1,026 | 681 | 9,414 |

Cumulative Adult Passage at Mainstem Dams Through: 10/09

| DAM | END DATE | Spring Chinook 2013 | | | | | | Summer Chinook 2013 | | | | | | Fall Chinook 2013 | | | | | |
|-----|----------|---------------------|-------|-------|-------|------------|-------|---------------------|-------|-------|-------|------------|-------|-------------------|--------|--------|--------|------------|-------|
| | | 2014 | | 2013 | | 10-Yr Avg. | | 2014 | | 2013 | | 10-Yr Avg. | | 2014 | | 2013 | | 10-Yr Avg. | |
| | | Adult | Jack | Adult | Jack | Adult | Jack | Adult | Jack | Adult | Jack | Adult | Jack | Adult | Jack | Adult | Jack | Adult | Jack |
| BON | 10/09 | 188083 | 26094 | 83345 | 33820 | 130283 | 22257 | 109734 | 25342 | 93097 | 26186 | 85511 | 18881 | 836672 | 130417 | 917514 | 105957 | 410360 | 64941 |
| TDA | 10/09 | 143142 | 21080 | 69202 | 32311 | 99813 | 18973 | 96134 | 19525 | 85639 | 20750 | 73080 | 14947 | 513940 | 87458 | 565592 | 82243 | 236709 | 53380 |
| JDA | 10/09 | 123224 | 19103 | 56991 | 28957 | 87036 | 17743 | 86033 | 17655 | 75248 | 19714 | 65621 | 15576 | 421144 | 74841 | 407467 | 83669 | 178668 | 48102 |
| MCN | 10/09 | 107147 | 16033 | 52176 | 22279 | 79413 | 14950 | 87974 | 17022 | 75741 | 14808 | 61586 | 11232 | 387529 | 68416 | 415962 | 49811 | 152004 | 31314 |
| IHR | 10/09 | 79298 | 12428 | 38017 | 18611 | 54814 | 9602 | 17433 | 4474 | 11912 | 6321 | 16717 | 4436 | 60013 | 17031 | 56472 | 18210 | 27107 | 14759 |
| LMN | 10/09 | 79942 | 14020 | 36470 | 19053 | 54458 | 8539 | 16064 | 8136 | 11765 | 7703 | 18241 | 4639 | 49931 | 22209 | 51959 | 21902 | 25087 | 14535 |
| LGS | 10/09 | 77966 | 13649 | 35072 | 19443 | 49920 | 9660 | 17058 | 7477 | 10120 | 7632 | 17208 | 5330 | 50519 | 15187 | 52857 | 19983 | 23644 | 11659 |
| LGR | 10/09 | 79167 | 13732 | 35031 | 19940 | 49728 | 11001 | 14668 | 7106 | 8423 | 7572 | 15316 | 5918 | 56722 | 16879 | 52770 | 19880 | 21596 | 13640 |
| PRD | 10/08 | 23742 | 2649 | 13725 | 1298 | 14700 | 1468 | 78434 | 4889 | 71083 | 3174 | 52746 | 2498 | 101787 | 10330 | 186134 | 15455 | 44084 | 5990 |
| WAN | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| RIS | 10/08 | 23247 | 2934 | 13345 | 3100 | 13890 | 2468 | 77982 | 6494 | 68386 | 3986 | 50079 | 5174 | 22201 | 6181 | 24345 | 10754 | 9192 | 3390 |
| RRH | 10/08 | 12376 | 2377 | 6841 | 2101 | 5576 | 1020 | 58569 | 5017 | 59685 | 4044 | 38940 | 4099 | 15932 | 4779 | 18427 | 6589 | 6382 | 2318 |
| WEL | 10/08 | 15376 | 2544 | 7133 | 2980 | 4880 | 1164 | 49255 | 5989 | 49451 | 4264 | 29289 | 3038 | 6059 | 2138 | 6396 | 1034 | 2952 | 1306 |
| WFA | 09/29 | 30071 | 1598 | 27897 | 1664 | 40347 | 1124 | 0 | 0 | 0 | 0 | 0 | 0 | 1158 | 418 | 1493 | 396 | 1138 | 265 |

| DAM | END DATE | Coho 2013 | | | | | | Sockeye | | | Steelhead | | | Wild | | | Lamprey | | |
|-----|----------|-----------|-------|-------|------|------------|------|---------|--------|------------|-----------|--------|------------|--------|-------|------------|---------|-------|------------|
| | | 2014 | | 2013 | | 10-Yr Avg. | | 2014 | 2013 | 10-Yr Avg. | 2014 | 2013 | 10-Yr Avg. | 2014 | 2013 | 10-Yr Avg. | 2014 | 2013 | 10-Yr Avg. |
| BON | 10/09 | 209824 | 12307 | 43846 | 5612 | 89403 | 5476 | 614179 | 185505 | 192204 | 317734 | 230145 | 343281 | 127367 | 97768 | 107871 | 31924 | 23961 | 24668 |
| TDA | 10/09 | 137409 | 10381 | 22432 | 2381 | 31355 | 3000 | 586187 | 161896 | 159036 | 241117 | 185168 | 265185 | 94773 | 78379 | 82383 | 11646 | 8730 | 6409 |
| JDA | 10/09 | 98429 | 7377 | 14886 | 1255 | 28103 | 3426 | 557531 | 155498 | 161068 | 184396 | 144832 | 242774 | 69476 | 61234 | 74592 | 8531 | 6640 | 5942 |
| MCN | 10/09 | 88397 | 13105 | 10744 | 1551 | 15587 | 1643 | 546012 | 134200 | 135990 | 187456 | 135377 | 203640 | 66452 | 52446 | 58320 | 1746 | 1565 | 2159 |
| IHR | 10/09 | 13561 | 628 | 1578 | 268 | 1887 | 197 | 2392 | 895 | 505 | 132935 | 99202 | 151860 | 38730 | 27082 | 36583 | 715 | 323 | 283 |
| LMN | 10/09 | 13687 | 2486 | 1320 | 243 | 1728 | 192 | 2805 | 1014 | 632 | 130103 | 91045 | 146804 | 42132 | 28653 | 37443 | 219 | 108 | 77 |
| LGS | 10/09 | 14382 | 2845 | 883 | 240 | 1566 | 186 | 2810 | 993 | 607 | 118711 | 75849 | 131177 | 37030 | 23265 | 31291 | 119 | 32 | 45 |
| LGR | 10/09 | 12856 | 318 | 626 | 137 | 1429 | 229 | 2783 | 757 | 681 | 119179 | 75738 | 126531 | 39126 | 23615 | 32021 | 82 | 19 | 11 |
| PRD | 10/08 | 29814 | 1842 | 2120 | 304 | 3888 | 474 | 608142 | 163078 | 167425 | 18693 | 13780 | 18436 | 0 | 0 | 0 | 7396 | 5862 | 3798 |
| WAN | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| RIS | 10/08 | 32000 | 132 | 577 | 55 | 4979 | 437 | 581111 | 159203 | 164839 | 13871 | 10230 | 16653 | 6569 | 5460 | 7542 | 2411 | 2139 | 1224 |
| RRH | 10/08 | 9166 | 58 | 88 | 3 | 1013 | 105 | 492880 | 131658 | 139953 | 9663 | 7903 | 12874 | 4518 | 4043 | 5272 | 3778 | 1621 | 597 |
| WEL | 10/08 | 5282 | 54 | 56 | 0 | 408 | 0 | 490794 | 129988 | 133697 | 6763 | 6002 | 9435 | 3332 | 2904 | 3868 | 7 | 21 | 7 |
| WFA | 09/29 | 2328 | 1419 | 12549 | 2976 | 5495 | 1577 | 0 | 0 | 0 | 27434 | 17887 | 25290 | 0 | 0 | 0 | 0 | 0 | 0 |

PRD does not post 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.