

# Pacific States Marine Fisheries Commission

## John Day Dam Condition Monitoring Weekly Report, #23-17

Report Period: 7/22 – 7/28, 2023

Project Manager: Allan Martin

Prepared By: Gregory Kovalchuk



### SECTION 1. River Flow and Sampling Results

|                   | Min   | Max   | Mean    |           |       |
|-------------------|-------|-------|---------|-----------|-------|
|                   |       |       | Current | Last Week | 2022  |
| A. River Flow     | 128.6 | 143.3 | 136.0   | 143.8     | 188.3 |
| B. Powerhouse 1   | 82.4  | 92.1  | 87.3    | 92.4      | 121.5 |
| C. Spill (kcfs)   | 45.0  | 50.1  | 47.6    | 50.3      | 65.6  |
| % of River Flow   | 35.0  | 35.0  | 35.0    | 35.0      | 34.8  |
| D. Water Temp *   | 72.0  | 72.1  | 72.1    | 71.5      | 68.7  |
| E. % Saturation * | 104.8 | 105.5 | 105.2   | 105.6     | 109.9 |

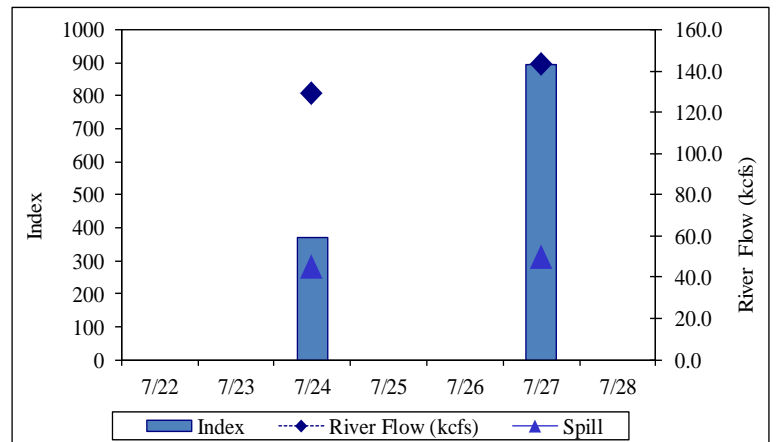
\* TDG data from USGS forebay sensor, water temp from lab and USGS sensor.

| % SAMPLE COMPOSITION |  | This Week | Last Week |
|----------------------|--|-----------|-----------|
| YEARLING CHINOOK     |  | 0.0%      | 0.0%      |
| SUBYEARLING CHINOOK  |  | 99.6%     | 99.0%     |
| CHINOOK FRY          |  | 0.0%      | 0.0%      |
| UNCLIPPED STEELHEAD  |  | 0.0%      | 0.0%      |
| CLIPPED STEELHEAD    |  | 0.0%      | 0.0%      |
| COHO                 |  | 0.0%      | 0.0%      |
| COHO FRY             |  | 0.0%      | 0.0%      |
| SOCKEYE              |  | 0.4%      | 1.0%      |

| YEARLING CHINOOK |             |         |        |        |        |         | SUBYEARLING CHINOOK |        |        |        |         | COHO    |        |        |        |        |
|------------------|-------------|---------|--------|--------|--------|---------|---------------------|--------|--------|--------|---------|---------|--------|--------|--------|--------|
| End Date         | Sample Rate | # Smpld | % Desc | % Mort | # Coll | Index   | # Smpld             | % Desc | % Mort | # Coll | Index   | # Smpld | % Desc | % Mort | # Coll | Index  |
| 7/22             |             |         |        |        |        |         |                     |        |        |        |         |         |        |        |        |        |
| 7/23             |             |         |        |        |        |         |                     |        |        |        |         |         |        |        |        |        |
| 7/24             | 46.5%       | 0       | 0.0    | 0.0    | 0      | 0       | 111                 | 0.9    | 0.9    | 239    | 370     | 0       | 0.0    | 0.0    | 0      | 0      |
| 7/25             |             |         |        |        |        |         |                     |        |        |        |         |         |        |        |        |        |
| 7/26             |             |         |        |        |        |         |                     |        |        |        |         |         |        |        |        |        |
| 7/27             | 19.3%       | 0       | 0.0    | 0.0    | 0      | 0       | 111                 | 0.0    | 0.0    | 575    | 888     | 0       | 0.0    | 0.0    | 0      | 0      |
| 7/28             |             |         |        |        |        |         |                     |        |        |        |         |         |        |        |        |        |
| Weekly           |             | 0       | 0.0    | 0.0    | 0      | 0       | 222                 | 0.5    | 0.5    | 814    | 1,257   | 0       | 0.0    | 0.0    | 0      | 0      |
| Season to date   |             | 3,887   | 2.2    | 0.2    | 84,179 | 214,013 | 3,193               | 1.2    | 0.1    | 53,962 | 143,252 | 283     | 4.9    | 0.0    | 8,144  | 22,038 |

| UNCLIPPED STEELHEAD |             |         |        |        |        |        | CLIPPED STEELHEAD |        |        |        |        | SOCKEYE |        |        |        |        |
|---------------------|-------------|---------|--------|--------|--------|--------|-------------------|--------|--------|--------|--------|---------|--------|--------|--------|--------|
| End Date            | Sample Rate | # Smpld | % Desc | % Mort | # Coll | Index  | # Smpld           | % Desc | % Mort | # Coll | Index  | # Smpld | % Desc | % Mort | # Coll | Index  |
| 7/22                |             |         |        |        |        |        |                   |        |        |        |        |         |        |        |        |        |
| 7/23                |             |         |        |        |        |        |                   |        |        |        |        |         |        |        |        |        |
| 7/24                | 46.5%       | 0       | 0.0    | 0.0    | 0      | 0      | 0                 | 0.0    | 0.0    | 0      | 0      | 0       | 0.0    | 0.0    | 0      | 0      |
| 7/25                |             |         |        |        |        |        |                   |        |        |        |        |         |        |        |        |        |
| 7/26                |             |         |        |        |        |        |                   |        |        |        |        |         |        |        |        |        |
| 7/27                | 19.3%       | 0       | 0.0    | 0.0    | 0      | 0      | 0                 | 0.0    | 0.0    | 0      | 0      | 1       | 0.0    | 0.0    | 5      | 8      |
| 7/28                |             |         |        |        |        |        |                   |        |        |        |        |         |        |        |        |        |
| Weekly              |             | 0       | 0.0    | 0.0    | 0      | 0      | 0                 | 0.0    | 0.0    | 0      | 0      | 1       | 0.0    | 0.0    | 5      | 8      |
| Season to date      |             | 344     | 3.5    | 0.0    | 10,294 | 25,917 | 958               | 4.0    | 0.0    | 38,693 | 97,930 | 139     | 5.8    | 0.0    | 4,696  | 11,557 |

| TOTAL          |             |         |        |        |         |         |
|----------------|-------------|---------|--------|--------|---------|---------|
| End Date       | Sample Rate | # Smpld | % Desc | % Mort | # Coll  | Index   |
| 7/22           |             |         |        |        |         |         |
| 7/23           |             |         |        |        |         |         |
| 7/24           | 46.5%       | 111     | 0.9    | 0.9    | 239     | 370     |
| 7/25           |             |         |        |        |         |         |
| 7/26           |             |         |        |        |         |         |
| 7/27           | 19.3%       | 112     | 0.0    | 0.0    | 580     | 896     |
| 7/28           |             |         |        |        |         |         |
| Weekly         |             | 223     | 0.5    | 0.4    | 819     | 1,265   |
| Season to date |             | 8,804   | 2.2    | 0.1    | 199,968 | 514,707 |



Notes: Condition percentages are calculated from sample numbers.  
Subyearling chinook and coho include fry.

## Western Brook

|                | Macrophthalmia |        |        | Ammocoetes |        |        | Ammocoetes |        |        |
|----------------|----------------|--------|--------|------------|--------|--------|------------|--------|--------|
| End Date       | # Smpld        | % Mort | # Coll | # Smpld    | % Mort | # Coll | # Smpld    | % Mort | # Coll |
| 7/22           |                |        |        |            |        |        |            |        |        |
| 7/23           |                |        |        |            |        |        |            |        |        |
| 7/24           | 0              | 0.0    | 0      | 1          | 0.0    | 2      | 0          | 0      | 0      |
| 7/25           |                |        |        |            |        |        |            |        |        |
| 7/26           |                |        |        |            |        |        |            |        |        |
| 7/27           | 0              | 0.0    | 0      | 0          | 0.0    | 0      | 0          | 0      | 0      |
| 7/28           |                |        |        |            |        |        |            |        |        |
| Weekly         | 0              | 0.0    | 0      | 1          | 0.0    | 2      | 0          | 0      | 0      |
| Season to date | 253            | 0.0    | 3,247  | 108        | 0.0    | 577    | 0          | 0      | 0      |

## **SECTION 2. Smolt and Lamprey Condition Monitoring Summary**

|                  |                           | Yearling Chinook |           | Subyearling Chinook |           | Unclipped Steelhead |           | Clipped Steelhead |           | Coho      |           | Sockeye   |           |
|------------------|---------------------------|------------------|-----------|---------------------|-----------|---------------------|-----------|-------------------|-----------|-----------|-----------|-----------|-----------|
|                  |                           | This Week        | Last Week | This Week           | Last Week | This Week           | Last Week | This Week         | Last Week | This Week | Last Week | This Week | Last Week |
| SAMPLE #         |                           | 0                | 0         | 221                 | 200       | 0                   | 0         | 0                 | 0         | 0         | 0         | 1         | 2         |
| DESCALING        | 3-19%                     |                  |           | 4.5%                | 4.0%      |                     |           |                   |           |           |           |           |           |
|                  | >20%<br>Pred. Desc.       |                  |           | 0.5%                | 1.5%      |                     |           |                   |           |           |           |           |           |
| INJURY           | BODY                      |                  |           | 0.5%                | 2.5%      |                     |           |                   |           |           |           |           |           |
|                  | EYE                       |                  |           |                     |           |                     |           |                   |           |           |           |           |           |
|                  | HEAD                      |                  |           | 0.5%                |           |                     |           |                   |           |           |           |           |           |
|                  | OPERC.                    |                  |           | 0.9%                | 0.5%      |                     |           |                   |           |           |           |           |           |
|                  | FIN                       |                  |           | 3.6%                | 2.0%      |                     |           |                   |           |           |           |           |           |
|                  | POPEYE                    |                  |           |                     |           |                     |           |                   |           |           |           |           |           |
| OTHER CONDITIONS | PINK FIN                  |                  |           |                     |           |                     |           |                   |           |           |           |           |           |
|                  | Fin Discolor.<br>FIN HEM. |                  |           | 3.6%                | 5.5%      |                     |           |                   |           |           |           |           |           |
| DISEASE          | Columnaris                |                  |           |                     |           |                     |           |                   |           |           |           |           |           |
|                  | FUNGUS                    |                  |           | 0.9%                |           |                     |           |                   |           |           |           |           |           |
|                  | BKD                       |                  |           | 3.2%                | 1.0%      |                     |           |                   |           |           |           |           |           |
|                  | PARASITES                 |                  |           | 14.0%               | 30.5%     |                     |           |                   |           |           |           |           |           |
|                  | DEFORMITY                 |                  |           |                     |           |                     |           |                   |           |           |           |           |           |
|                  | EYE HEM.                  |                  |           |                     |           |                     |           |                   |           |           |           |           |           |
| PREDATION        | BIRD                      |                  |           |                     |           |                     |           |                   |           |           |           |           |           |
|                  | FISH                      |                  |           | 0.5%                | 2.0%      |                     |           |                   |           |           |           |           |           |
|                  | LAMPREY                   |                  |           | 0.5%                | 0.5%      |                     |           |                   |           |           |           |           |           |
|                  | OTHER                     |                  |           |                     |           |                     |           |                   |           |           |           |           |           |
| end dates        |                           | 7/28             | 7/21      |                     |           |                     |           |                   |           |           |           |           |           |

[illegible]

### **SECTION 3. Incidental Summary**

|                | Bass<br>Largemouth | Bass<br>Smallmouth | Bluegill and<br>Pumpkinseed | Bullhead | Carp | Catfish,<br>Channel | Chiselmouth | Crappie<br>species |
|----------------|--------------------|--------------------|-----------------------------|----------|------|---------------------|-------------|--------------------|
| This Week      | 0                  | 2                  | 0                           | 0        | 1    | 0                   | 0           | 0                  |
| Season to Date | 0                  | 19                 | 6                           | 0        | 3    | 1                   | 0           | 7                  |

|                | Dace -<br>Longnose | Dace -<br>Speckled | Chinook Jack | Kokanee | Lamprey<br>Adult | Northern<br>Pikeminnow | Peamouth | Perch Yellow |
|----------------|--------------------|--------------------|--------------|---------|------------------|------------------------|----------|--------------|
| This Week      | 0                  | 0                  | 0            | 0       | 0                | 1                      | 0        | 0            |
| Season to Date | 0                  | 0                  | 0            | 0       | 2                | 1                      | 0        | 69           |

|                | Redside Shiner | Sand Roller | Sculpin species | Stickleback 3<br>spine | Sucker<br>species | Shad Adult | Shad Juvenile | Sturgeon<br>White |
|----------------|----------------|-------------|-----------------|------------------------|-------------------|------------|---------------|-------------------|
| This Week      | 0              | 0           | 6               | 0                      | 0                 | 1          | 402           | 0                 |
| Season to Date | 0              | 0           | 18              | 4                      | 2                 | 1          | 465           | 0                 |

|                | Trout Bull | Trout<br>Cutthroat | Trout Rainbow | Walleye | Whitefish<br>Mountain | Siberian Prawn | Chum Salmon | Banded<br>Killifish |
|----------------|------------|--------------------|---------------|---------|-----------------------|----------------|-------------|---------------------|
| This Week      | 0          | 0                  | 0             | 7       | 0                     | 0              | 0           | 0                   |
| Season to Date | 0          | 0                  | 0             | 31      | 4                     | 184            | 0           | 3                   |

### **SECTION 4. Facility Operations**

Condition Monitoring at John Day Dam was scheduled to sample Monday, Wednesday, and Friday until the Columbia River water temperature averages 70 degrees F., which occurred on July 6. We will now sample Mondays and Thursdays until the Columbia River water temperature averages 69.5 degrees F, at which point we will go back to Monday, Wednesday, and Friday sampling. Samples will be taken from the Juvenile Bypass System between 0700 and 1300 hrs. and the Condition Exams will target approximately 100 of the predominant species of out-migrant, which is currently Subyearling Fall Chinook which were 99.6% of the sample this week. Collection, Index, and River flow estimates and averages are for the sample period only. Debris at the separator bars continued to be very low for the week and consisted of a few sticks and tumbleweed pieces but mostly soft debris such as aquatic macrophytes and bryozoans.

### **SECTION 5. Research**

One genetic fin clip sample was taken from a Pacific Lamprey ammocoete for the Columbia River Inter-Tribal Fish Commission during this report period.

## SECTION 6. Pictures



Juvenile Northern Pikeminnow (*Ptychocheilus oregonensis*), approximately 40 mm fork length, sampled at the John Day Dam Smolt Facility, sampled on July 24, 2023.



Juvenile Common Carp (*Cyprinus carpio*), approximately 75 mm fork length, sampled at the John Day Dam Smolt Facility on July 27, 2023. This variation of the Common Carp is often called a Mirror Carp due to the large and irregular scales.