

# Pacific States Marine Fisheries Commission

## John Day Dam Condition Monitoring Weekly Report, #23-16

Report Period: 7/15 – 7/21, 2023

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### SECTION 1. River Flow and Sampling Results

|                   | Min   | Max   | Mean    |           |       |
|-------------------|-------|-------|---------|-----------|-------|
|                   |       |       | Current | Last Week | 2022  |
| A. River Flow     | 134.4 | 153.2 | 143.8   | 127.9     | 210.3 |
| B. Powerhouse 1   | 86.3  | 98.5  | 92.4    | 81.9      | 135.7 |
| C. Spill (kcfs)   | 47.0  | 53.6  | 50.3    | 44.4      | 73.5  |
| % of River Flow   | 35.0  | 35.0  | 35.0    | 34.7      | 35.0  |
| D. Water Temp *   | 70.5  | 72.5  | 71.5    | 70.4      | 67.0  |
| E. % Saturation * | 103.5 | 107.6 | 105.6   | 105.9     | 110.8 |

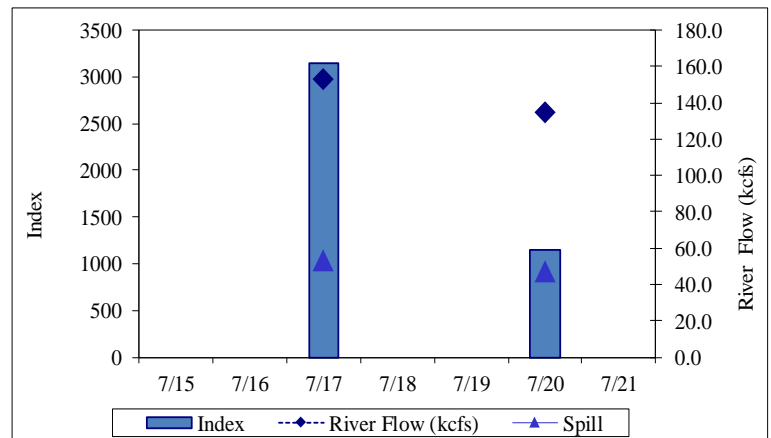
\* TDG data from USGS forebay sensor, water temp from lab and USGS sensor.

| % SAMPLE COMPOSITION |  | This Week | Last Week |
|----------------------|--|-----------|-----------|
| YEARLING CHINOOK     |  | 0.0%      | 0.0%      |
| SUBYEARLING CHINOOK  |  | 99.0%     | 100.0%    |
| 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              |  | 1.0%      | 0.0%      |

| YEARLING CHINOOK |             |         |        |        |        |         | SUBYEARLING CHINOOK |        |        |        |         | COHO    |        |        |        |        |
|------------------|-------------|---------|--------|--------|--------|---------|---------------------|--------|--------|--------|---------|---------|--------|--------|--------|--------|
| End Date         | Sample Rate | # Smpld | % Desc | % Mort | # Coll | Index   | # Smpld             | % Desc | % Mort | # Coll | Index   | # Smpld | % Desc | % Mort | # Coll | Index  |
| 7/15             | 5.0%        | 0       | 0.0    | 0.0    | 0      | 0       | 101                 | 3.0    | 0.0    | 2,020  | 3,119   | 0       | 0.0    | 0.0    | 0      | 0      |
| 7/16             |             |         |        |        |        |         |                     |        |        |        |         |         |        |        |        |        |
| 7/17             |             |         |        |        |        |         |                     |        |        |        |         |         |        |        |        |        |
| 7/18             | 13.5%       | 0       | 0.0    | 0.0    | 0      | 0       | 99                  | 0.0    | 0.0    | 739    | 1,141   | 0       | 0.0    | 0.0    | 0      | 0      |
| 7/19             |             |         |        |        |        |         |                     |        |        |        |         |         |        |        |        |        |
| 7/20             |             |         |        |        |        |         |                     |        |        |        |         |         |        |        |        |        |
| 7/21             |             |         |        |        |        |         |                     |        |        |        |         |         |        |        |        |        |
| Weekly           |             | 0       | 0.0    | 0.0    | 0      | 0       | 200                 | 1.5    | 0.0    | 2,759  | 4,261   | 0       | 0.0    | 0.0    | 0      | 0      |
| Season to date   |             | 3,887   | 2.2    | 0.2    | 84,179 | 214,013 | 2,971               | 1.2    | 0.1    | 53,148 | 141,994 | 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  |
| 7/15                | 5.0%        | 0       | 0.0    | 0.0    | 0      | 0      | 0                 | 0.0    | 0.0    | 0      | 0      | 1       | 0.0    | 0.0    | 20     | 31     |
| 7/16                |             |         |        |        |        |        |                   |        |        |        |        |         |        |        |        |        |
| 7/17                |             |         |        |        |        |        |                   |        |        |        |        |         |        |        |        |        |
| 7/18                | 13.5%       | 0       | 0.0    | 0.0    | 0      | 0      | 0                 | 0.0    | 0.0    | 0      | 0      | 1       | 0.0    | 0.0    | 1      | 2      |
| 7/19                |             |         |        |        |        |        |                   |        |        |        |        |         |        |        |        |        |
| 7/20                |             |         |        |        |        |        |                   |        |        |        |        |         |        |        |        |        |
| 7/21                |             |         |        |        |        |        |                   |        |        |        |        |         |        |        |        |        |
| Weekly              |             | 0       | 0.0    | 0.0    | 0      | 0      | 0                 | 0.0    | 0.0    | 0      | 0      | 2       | 0.0    | 0.0    | 21     | 32     |
| Season to date      |             | 344     | 3.5    | 0.0    | 10,294 | 25,917 | 958               | 4.0    | 0.0    | 38,693 | 97,930 | 138     | 5.8    | 0.0    | 4,691  | 11,550 |

| TOTAL          |             |         |        |        |         |         |
|----------------|-------------|---------|--------|--------|---------|---------|
| End Date       | Sample Rate | # Smpld | % Desc | % Mort | # Coll  | Index   |
| 7/15           | 5.0%        | 102     | 2.9    | 0.0    | 2,040   | 3,150   |
| 7/16           |             |         |        |        |         |         |
| 7/17           |             |         |        |        |         |         |
| 7/18           | 13.5%       | 100     | 0.0    | 0.0    | 740     | 1,143   |
| 7/19           |             |         |        |        |         |         |
| 7/20           |             |         |        |        |         |         |
| 7/21           |             |         |        |        |         |         |
| Weekly         |             | 202     | 1.5    | 0.0    | 2,780   | 4,293   |
| Season to date |             | 8,581   | 2.3    | 0.1    | 199,149 | 513,442 |



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 |
| 7/15           |                |        |        |            |        |        |            |        |        |
| 7/16           |                |        |        |            |        |        |            |        |        |
| 7/17           | 0              | 0.0    | 0      | 0          | 0.0    | 0      | 0          | 0      | 0      |
| 7/18           |                |        |        |            |        |        |            |        |        |
| 7/19           |                |        |        |            |        |        |            |        |        |
| 7/20           | 0              | 0.0    | 0      | 0          | 0.0    | 0      | 0          | 0      | 0      |
| 7/21           |                |        |        |            |        |        |            |        |        |
| Weekly         | 0              | 0.0    | 0      | 0          | 0.0    | 0      | 0          | 0      | 0      |
| Season to date | 253            | 0.0    | 3,247  | 107        | 0.0    | 575    | 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         | 200                 | 214       | 0                   | 0         | 0                 | 0         | 0         | 0         | 2         | 0         |
| DESCALING        | 3-19%                     |                  |           | 4.0%                | 4.7%      |                     |           |                   |           |           |           |           |           |
|                  | >20%<br>Pred. Desc.       |                  |           | 1.5%                | 1.4%      |                     |           |                   |           |           |           |           |           |
| INJURY           | BODY                      |                  |           | 2.5%                | 0.9%      |                     |           |                   |           |           |           |           |           |
|                  | EYE                       |                  |           |                     |           |                     |           |                   |           |           |           |           |           |
|                  | HEAD                      |                  |           |                     |           |                     |           |                   |           |           |           |           |           |
|                  | OPERC.                    |                  |           | 0.5%                |           |                     |           |                   |           |           |           |           |           |
|                  | FIN                       |                  |           | 2.0%                | 1.9%      |                     |           |                   |           |           |           |           |           |
|                  | POPEYE                    |                  |           |                     |           |                     |           |                   |           |           |           |           |           |
| OTHER CONDITIONS | PINK FIN                  |                  |           |                     |           |                     |           |                   |           |           |           |           |           |
|                  | Fin Discolor.<br>FIN HEM. |                  |           | 5.5%                | 6.1%      |                     |           |                   |           |           |           |           |           |
| DISEASE          | Columnaris                |                  |           |                     |           |                     |           |                   |           |           |           |           |           |
|                  | FUNGUS                    |                  |           |                     | 0.5%      |                     |           |                   |           |           |           |           |           |
|                  | BKD                       |                  |           | 1.0%                | 0.5%      |                     |           |                   |           |           |           |           |           |
|                  | PARASITES                 |                  |           | 30.5%               | 29.9%     |                     |           |                   |           |           |           |           |           |
|                  | DEFORMITY                 |                  |           |                     |           |                     |           |                   |           |           |           |           |           |
|                  | EYE HEM.                  |                  |           |                     |           |                     |           |                   |           |           |           |           |           |
|                  |                           |                  |           |                     |           |                     |           |                   |           |           |           |           |           |
|                  |                           |                  |           |                     |           |                     |           |                   |           |           |           |           |           |
| PREDATION        | BIRD                      |                  |           |                     | 0.9%      |                     |           |                   |           |           |           |           |           |
|                  | FISH                      |                  |           | 2.0%                | 2.3%      |                     |           |                   |           |           |           |           |           |
|                  | LAMPREY                   |                  |           | 0.5%                | 0.9%      |                     |           |                   |           |           |           |           |           |
|                  | OTHER                     |                  |           |                     |           |                     |           |                   |           |           |           |           |           |
| end dates        |                           | 7/21             | 7/14      |                     |           |                     |           |                   |           |           |           |           |           |

|           |      |      |
|-----------|------|------|
| end dates | 7/21 | 7/14 |
|-----------|------|------|

|   |                 |          | INJURY |     |      |     |        | DISEASE and OTHER CONDITIONS |            |        |           |          | PREDATION |      |
|---|-----------------|----------|--------|-----|------|-----|--------|------------------------------|------------|--------|-----------|----------|-----------|------|
| <b>MP-<br/>Macrophthalmia</b><br>This Week<br>Last Week | <b>End Date</b> | SAMPLE # | BODY   | EYE | HEAD | FIN | POPEYE | FIN HEM                      | Columnaris | FUNGUS | DEFORMITY | EYE HEM. | BIRD      | FISH |
|   | 7/21            | <b>0</b> |        |     |      |     |        |                              |            |        |           |          |           |      |
|   | 7/14            | <b>0</b> |        |     |      |     |        |                              |            |        |           |          |           |      |
| <b>AP - Ammocoetes</b><br>This Week<br>Last Week        |                 | SAMPLE # |        |     |      |     |        |                              |            |        |           |          |           |      |
|   | 7/21            | <b>0</b> |        |     |      |     |        |                              |            |        |           |          |           |      |
|   | 7/14            | <b>0</b> |        |     |      |     |        |                              |            |        |           |          |           |      |

### **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                  | 1                  | 0                           | 0        | 0    | 0                   | 0           | 0                  |
| Season to Date | 0                  | 17                 | 6                           | 0        | 2    | 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                | 0                      | 0        | 1            |
| Season to Date | 0                  | 0                  | 0            | 0       | 2                | 0                      | 0        | 69           |

|                | Redside<br>Shiner | Sand Roller | Sculpin<br>species | Stickleback<br>3 spine | Sucker<br>species | Shad Adult | Shad<br>Juvenile | Sturgeon<br>White |
|----------------|-------------------|-------------|--------------------|------------------------|-------------------|------------|------------------|-------------------|
| This Week      | 0                 | 0           | 0                  | 0                      | 0                 | 0          | 63               | 0                 |
| Season to Date | 0                 | 0           | 12                 | 4                      | 2                 | 0          | 63               | 0                 |

|                | Trout Bull | Trout<br>Cutthroat | Trout<br>Rainbow | Walleye | Whitefish<br>Mountain | Siberian<br>Prawn | Chum<br>Salmon | Banded<br>Killifish |
|----------------|------------|--------------------|------------------|---------|-----------------------|-------------------|----------------|---------------------|
| This Week      | 0          | 0                  | 0                | 2       | 0                     | 0                 | 0              | 1                   |
| Season to Date | 0          | 0                  | 0                | 24      | 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% of the sample this week. Collection, Index, and River flow estimates and averages are for the sample period only. Debris at the separator bars was 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**

No genetic fin clip samples were taken from Pacific Lamprey macrophthalmia or ammocoetes for the Columbia River Inter-Tribal Fish Commission during this report period because no lamprey were sampled this week.

## SECTION 6. Pictures



Juvenile American shad fry (*Alosa sapidissima*), approximately 45 mm fork length, sampled at the John Day Dam Smolt Facility on July 20, 2023.



Adult Banded Killifish female? (*Fundulus diaphanus*), approximately 85 mm fork length, the largest specimen ever sampled at the John Day Dam Smolt Facility, sampled on July 17, 2023.



Adult Banded Killifish male? (*Fundulus diaphanus*), approximately 80 mm fork length, sampled at the John Day Dam Smolt Facility on May 20, 2018.