

# United States Army Corps of Engineers

## John Day Dam Smolt and Juvenile Lamprey Condition Monitoring

Weekly Report, #24-18 Report Period: 7/27 – 8/2, 2024

Prepared By: Gregory Kovalchuk



### SECTION 1. River Flow and Sampling Results

|                   | Min   | Max   | Mean    |           |       |
|-------------------|-------|-------|---------|-----------|-------|
|                   |       |       | Current | Last Week | 2023  |
| A. River Flow     | 128.1 | 140.4 | 134.3   | 121.7     | 119.6 |
| B. Powerhouse     | 90.4  | 106.1 | 98.3    | 77.9      | 76.2  |
| C. Spill (kcfs)   | 21.1  | 48.9  | 35.0    | 42.4      | 42.2  |
| % of River Flow   | 16.5  | 34.8  | 25.7    | 34.8      | 35.2% |
| D. Water Temp *   | 70.0  | 70.3  | 70.2    | 70.9      | 71.9  |
| E. % Saturation * | 103.8 | 0.0   | 109.2   | 106.1     | 105.0 |

Note: Data is for the sample period only (0700 - 1300 hrs).

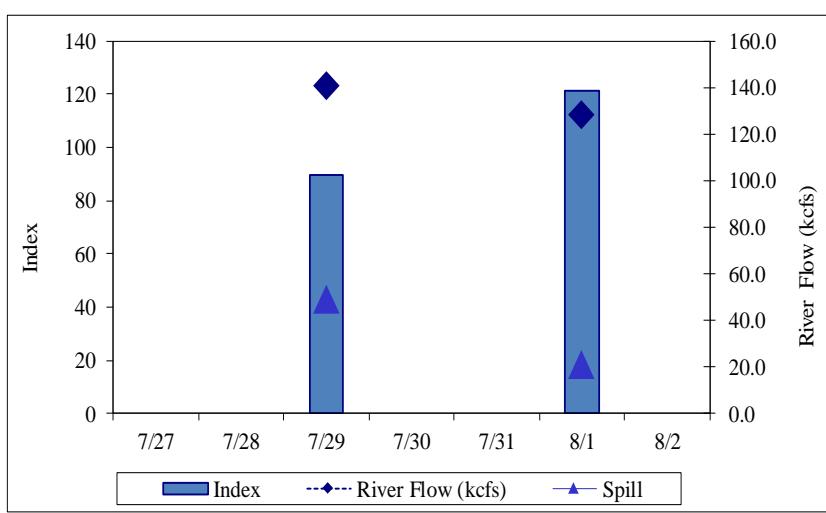
| % SAMPLE COMPOSITION | This Week | Last Week |
|----------------------|-----------|-----------|
| YEARLING CHINOOK     | 0.0%      | 0.0%      |
| SUBYEARLING CHINOOK  | 99.4%     | 99.0%     |
| CHINOOK FRY          | 0.0%      | 0.0%      |
| UNCLIPPED STEELHEAD  | 0.0%      | 0.0%      |
| CLIPPED STEELHEAD    | 0.0%      | 0.0%      |
| COHO                 | 0.0%      | 0.0%      |
| COHO FRY             | 0.0%      | 0.0%      |
| SOCKEYE              | 0.6%      | 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  |   |
| 7/27             |             |         |        |        |        |                     |         |        |        |        |         |         |        |        |        |        |   |
| 7/28             |             |         |        |        |        |                     |         |        |        |        |         |         |        |        |        |        |   |
| 7/29             | 100.0%      | 0       | 0.0    | 0.0    | 0      | 0                   | 57      | 3.5    | 0.0    | 57     | 88      | 0       | 0.0    | 0.0    | 0      | 0      | 0 |
| 7/30             |             |         |        |        |        |                     |         |        |        |        |         |         |        |        |        |        |   |
| 7/31             |             |         |        |        |        |                     |         |        |        |        |         |         |        |        |        |        |   |
| 8/1              | 100.0%      | 0       | 0.0    | 0.0    | 0      | 0                   | 101     | 4.0    | 0.0    | 101    | 121     | 0       | 0.0    | 0.0    | 0      | 0      | 0 |
| 8/2              |             |         |        |        |        |                     |         |        |        |        |         |         |        |        |        |        |   |
| Weekly           |             | 0       | 0.0    | 0.0    | 0      | 0                   | 158     | 3.8    | 0.0    | 158    | 209     | 0       | 0.0    | 0.0    | 0      | 0      | 0 |
| Season to date   |             | 4,127   | 2.3    | 0.0    | 56,351 | 93,291              | 3,576   | 2.8    | 0.0    | 81,498 | 129,331 | 579     | 4.3    | 0.0    | 9,545  | 15,903 |   |

| UNCLIPPED      |             |         |        |        |        | STEELHEAD |         |        |        |        |        | CLIPPED |        |        |        |        |         | SOCKEYE |        |        |       |   |  |  |
|----------------|-------------|---------|--------|--------|--------|-----------|---------|--------|--------|--------|--------|---------|--------|--------|--------|--------|---------|---------|--------|--------|-------|---|--|--|
| End Date       | Sample Rate | # Smpld | % Desc | % Mort | # Coll | Index     | # Smpld | % Desc | % Mort | # Coll | Index  | # Smpld | % Desc | % Mort | # Coll | Index  | # Smpld | % Desc  | % Mort | # Coll | Index |   |  |  |
| 7/27           |             |         |        |        |        |           |         |        |        |        |        |         |        |        |        |        |         |         |        |        |       |   |  |  |
| 7/28           |             |         |        |        |        |           |         |        |        |        |        |         |        |        |        |        |         |         |        |        |       |   |  |  |
| 7/29           | 100.0%      | 0       | 0.0    | 0.0    | 0      | 0         | 0       | 0.0    | 0.0    | 0      | 0      | 1       | 0.0    | 0.0    | 1      | 2      | 0       | 0.0     | 0.0    | 0      | 0     | 0 |  |  |
| 7/30           |             |         |        |        |        |           |         |        |        |        |        |         |        |        |        |        |         |         |        |        |       |   |  |  |
| 7/31           |             |         |        |        |        |           |         |        |        |        |        |         |        |        |        |        |         |         |        |        |       |   |  |  |
| 8/1            | 100.0%      | 0       | 0.0    | 0.0    | 0      | 0         | 0       | 0.0    | 0.0    | 0      | 0      | 0       | 0.0    | 0.0    | 0      | 0      | 0       | 0.0     | 0.0    | 0      | 0     | 0 |  |  |
| 8/2            |             |         |        |        |        |           |         |        |        |        |        |         |        |        |        |        |         |         |        |        |       |   |  |  |
| Weekly         |             | 0       | 0.0    | 0.0    | 0      | 0         | 0       | 0.0    | 0.0    | 0      | 0      | 1       | 0.0    | 0.0    | 1      | 2      | 0       | 0.0     | 0.0    | 1      | 2     | 0 |  |  |
| Season to date |             | 286     | 5.2    | 0.0    | 4,323  | 7,164     | 911     | 7.4    | 0.0    | 16,018 | 26,729 | 620     | 3.7    | 0.0    | 8,075  | 13,377 |         |         |        |        |       |   |  |  |

| TOTAL          |             |         |        |        |         |         |
|----------------|-------------|---------|--------|--------|---------|---------|
| End Date       | Sample Rate | # Smpld | % Desc | % Mort | # Coll  | Index   |
| 7/27           |             |         |        |        |         |         |
| 7/28           |             |         |        |        |         |         |
| 7/29           | 100.0%      | 58      | 3.4    | 0.0    | 58      | 89      |
| 7/30           |             |         |        |        |         |         |
| 7/31           |             |         |        |        |         |         |
| 8/1            | 100.0%      | 101     | 4.0    | 0.0    | 101     | 121     |
| 8/2            |             |         |        |        |         |         |
| Weekly         |             | 159     | 3.8    | 0.0    | 159     | 210     |
| Season to date |             | 10,099  | 3.2    | 0.0    | 175,810 | 285,796 |

Notes: Condition percentages are calculated using sample numbers.  
 Subyearling Chinook and Coho include fry. All river flow, powerhouse, spill and index estimates are for the sample period only.



|                | Pacific Lamprey |        |        |            |        |        | Western Brook Ammocoetes |        |        |
|----------------|-----------------|--------|--------|------------|--------|--------|--------------------------|--------|--------|
|                | Macrophthalmia  |        |        | Ammocoetes |        |        | Ammocoetes               |        |        |
| End Date       | # Smpld         | % Mort | # Coll | # Smpld    | % Mort | # Coll | # Smpld                  | % Mort | # Coll |
| 7/27           |                 |        |        |            |        |        |                          |        |        |
| 7/28           |                 |        |        |            |        |        |                          |        |        |
| 7/29           | 0               | 0.0    | 0      | 2          | 0.0    | 2      | 0                        | 0      | 0      |
| 7/30           |                 |        |        |            |        |        |                          |        |        |
| 7/31           |                 |        |        |            |        |        |                          |        |        |
| 8/1            | 0               | 0.0    | 0      | 0          | 0.0    | 0      | 0                        | 0      | 0      |
| 8/2            |                 |        |        |            |        |        |                          |        |        |
| Weekly         | 0               | 0.0    | 0      | 2          | 0.0    | 2      | 0                        | 0      | 0      |
| Season to date | 8               | 0.0    | 70     | 4          | 0.0    | 6      | 0                        | 0      | 0      |

## SECTION 2. Smolt and Lamprey Condition Monitoring Summary

|           | Yearling     |           | Subyearling |           | Unclipped |           | Clipped   |           | Coho      |           | Sockeye   |           | Total All Species Combined | Percent All Species Combined |
|-----------|--------------|-----------|-------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------------------------|------------------------------|
|           | Chinook      |           | Chinook     |           | Steelhead |           | Steelhead |           |           |           |           |           |                            |                              |
|           | This Week    | Last Week | This Week   | Last Week | This Week | Last Week | This Week | Last Week | This Week | Last Week | This Week | Last Week | This Week                  | This Week                    |
| SAMPLE #  | 0            | 0         | 158         | 197       | 0         | 0         | 0         | 0         | 0         | 0         | 1         | 2         | 159                        | 100%                         |
| DESCALING | 3-19%        |           | 2.5%        | 2.5%      |           |           |           |           |           |           | 50.0%     | 4         | 2.5%                       |                              |
|           | >20%         |           | 0.5%        |           |           |           |           |           |           |           |           | 0         | 0.0%                       |                              |
|           | Pred. Desc.  |           | 3.8%        | 5.1%      |           |           |           |           |           |           |           | 6         | 3.8%                       |                              |
| INJURY    | BODY         |           |             | 1.0%      |           |           |           |           |           |           |           | 0         | 0.0%                       |                              |
|           | EYE          |           |             |           |           |           |           |           |           |           |           | 0         | 0.0%                       |                              |
|           | HEAD         |           |             |           |           |           |           |           |           |           |           | 0         | 0.0%                       |                              |
|           | OPERC.       |           |             |           |           |           |           |           |           |           |           | 0         | 0.0%                       |                              |
|           | FIN          |           |             |           | 3.2%      | 1.5%      |           |           |           |           |           | 5         | 3.1%                       |                              |
|           | POPEYE       |           |             |           |           |           |           |           |           |           |           | 0         | 0.0%                       |                              |
| OTHER     | PINK FIN     |           |             |           |           |           |           |           |           |           |           | 0         | 0.0%                       |                              |
| CONDITION | Fin Discolor |           |             |           |           |           |           |           |           |           |           | 0         | 0.0%                       |                              |
|           | FIN HEM      |           |             |           | 0.6%      | 4.1%      |           |           |           |           |           | 1         | 0.6%                       |                              |
| DISEASE   | Columnaris   |           |             |           | 0.5%      |           |           |           |           |           |           | 0         | 0.0%                       |                              |
|           | FUNGUS       |           |             |           | 1.5%      |           |           |           |           |           |           | 0         | 0.0%                       |                              |
|           | BKD          |           |             |           | 0.6%      |           |           |           |           |           |           | 1         | 0.6%                       |                              |
|           | PARASITES    |           |             |           | 1.3%      | 6.6%      |           |           |           |           |           | 2         | 1.3%                       |                              |
|           | DEFORMITY    |           |             |           |           |           |           |           |           |           |           | 0         | 0.0%                       |                              |
|           | EYE HEM      |           |             |           |           |           |           |           |           |           |           | 0         | 0.0%                       |                              |
| PREDATION | BIRD         |           |             | 0.5%      |           |           |           |           |           |           |           | 0         | 0.0%                       |                              |
|           | FISH         |           |             | 4.4%      | 5.1%      |           |           |           |           |           |           | 7         | 4.4%                       |                              |
|           | LAMPREY      |           |             |           |           |           |           |           |           |           |           | 0         | 0.0%                       |                              |
|           | OTHER        |           |             |           |           |           |           |           |           |           |           | 0         | 0.0%                       |                              |

### SECTION 3. Incidental Summary

|                | Bass-Largemouth | Bass-Smallmouth | Bluegill and Pumpkinseed | Bullhead            | Carp               | Catfish-Channel     | Chiselmouth   | Crappie species  |
|----------------|-----------------|-----------------|--------------------------|---------------------|--------------------|---------------------|---------------|------------------|
| This Week      | 0               | 6               | 0                        | 0                   | 0                  | 0                   | 0             | 0                |
| Season to Date | 0               | 13              | 7                        | 0                   | 0                  | 0                   | 0             | 1                |
|                | Dace - Longnose | Dace - Speckled | Chinook Jack             | Kokanee             | Lamprey Adult      | Northern Pikeminnow | Peamouth      | Perch Yellow     |
| This Week      | 0               | 0               | 0                        | 0                   | 0                  | 0                   | 0             | 0                |
| Season to Date | 0               | 0               | 0                        | 0                   | 1                  | 2                   | 0             | 119              |
|                | Redside Shiner  | Sand Roller     | Sculpin species          | Stickleback 3 spine | Sucker species     | Shad Adult          | Shad Juvenile | Sturgeon White   |
| This Week      | 0               | 0               | 9                        | 0                   | 0                  | 1                   | 2,475         | 0                |
| Season to Date | 0               | 0               | 25                       | 1                   | 1                  | 1                   | 2,899         | 0                |
|                | Trout Bull      | Trout Cutthroat | Trout Rainbow            | Walleye             | Whitefish Mountain | Siberian Prawn      | Chum Salmon   | Banded Killifish |
| This Week      | 0               | 0               | 0                        | 6                   | 0                  | 0                   | 0             | 0                |
| Season to Date | 0               | 0               | 0                        | 40                  | 0                  | 95                  | 0             | 1                |

### SECTION 4. Facility Operations

Condition Monitoring at John Day Dam is currently sampling Mondays and Thursdays since daily average river water temperatures have reached 70 degrees F in the John Day Dam forebay. Sampling will return to Mondays, Wednesdays, and Fridays once daily average river water temperatures fall to 69.5 degrees F. Samples will be taken from the Juvenile Bypass System between 0700 and 1300 hrs. and the Condition Exams will target approximately 100 out-migrants. All river flow, powerhouse, spill, and index estimates are based on the sample period only. Debris at the separator bars was low for the week and consisted of adult American shad, bryozoans, freshwater sponges, a few small sticks, and aquatic vegetation.

### SECTION 5. Research

Two genetic fin clip samples were taken from Pacific Lamprey ammocoetes this week for the Columbia River Inter-Tribal Fish Commission.

## SECTION 6. Pictures



Juvenile American shad fry (*Alosa sapidissima*), approximately 40 mm total length, the specimen on top is rather unusual in that it has not grown scales yet whereas most of the fry this size already have scales like the specimen on the bottom, both sampled at the John Day Dam Smolt Facility on 1 August, 2024.



Juvenile Bluegill Sunfish (*Lepomis macrochirus*), approximately 70 mm fork length, sampled at the John Day Dam Smolt Facility on 5 August, 2024.