

Pacific States Marine Fisheries Commission

John Day Dam Condition Monitoring Weekly Report, #23-14

Report Period: 7/1 – 7/7, 2023

Project Manager: Allan Martin

Prepared By: Gregory Kovalchuk and Aaron Young



SECTION 1. River Flow and Sampling Results

| | Mean | | | | |
|-------------------|-------|-------|---------|-----------|-------|
| | Min | Max | Current | Last Week | 2022 |
| A. River Flow | 129.7 | 130.0 | 129.9 | 144.1 | 271.1 |
| B. Powerhouse 1 | 83.3 | 83.4 | 83.4 | 92.7 | 175.9 |
| C. Spill (kcfs) | 45.2 | 45.9 | 45.6 | 50.1 | 94.3 |
| % of River Flow | 34.8 | 35.3 | 35.1 | 34.7 | 34.8 |
| D. Water Temp * | 69.8 | 69.9 | 69.9 | 66.4 | 63.1 |
| E. % Saturation * | 108.7 | 109.6 | 109.2 | 107.3 | 113.8 |

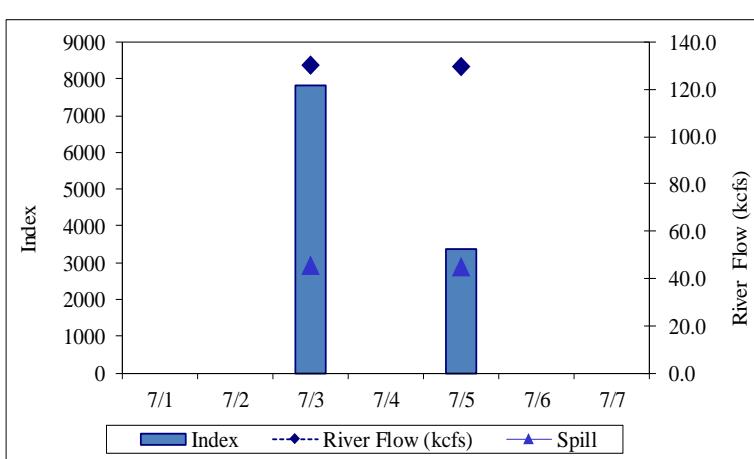
* TDG data from USGS forebay sensor, water temp from lab and USGS sensor.

| % SAMPLE COMPOSITION | This Week | Last Week |
|----------------------|-----------|-----------|
| YEARLING CHINOOK | 0.5% | 0.6% |
| SUBYEARLING CHINOOK | 98.5% | 98.7% |
| CHINOOK FRY | 0.0% | 0.0% |
| UNCLIPPED STEELHEAD | 0.0% | 0.0% |
| CLIPPED STEELHEAD | 0.0% | 0.0% |
| COHO | 0.5% | 0.6% |
| COHO FRY | 0.0% | 0.0% |
| SOCKEYE | 0.5% | 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 | |
| 7/1 | | | | | | | | | | | | | | | | | |
| 7/2 | | | | | | | | | | | | | | | | | |
| 7/3 | 2.0% | 0 | 0.0 | 0.0 | 0 | 0 | 100 | 1.0 | 0.0 | 5,000 | 7,755 | 1 | 0.0 | 0.0 | 50 | 78 | |
| 7/4 | | | | | | | | | | | | | | | | | |
| 7/5 | 4.8% | 1 | 0.0 | 0.0 | 25 | 39 | 103 | 2.9 | 0.0 | 2,125 | 3,277 | 0 | 0.0 | 0.0 | 0 | 0 | |
| 7/6 | | | | | | | | | | | | | | | | | |
| 7/7 | | | | | | | | | | | | | | | | | |
| Weekly | | 1 | 0.0 | 0.0 | 25 | 39 | 203 | 2.0 | 0.0 | 7,125 | 11,032 | 1 | 0.0 | 0.0 | 50 | 78 | |
| Season to date | | 3,887 | 2.2 | 0.2 | 84,179 | 214,013 | 2,556 | 1.2 | 0.1 | 47,804 | 133,759 | 283 | 4.9 | 0.0 | 8,144 | 22,038 | |

| 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 | | |
| 7/1 | | | | | | | | | | | | | | | | | | | | | | | |
| 7/2 | | | | | | | | | | | | | | | | | | | | | | | |
| 7/3 | 2.0% | 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 | | |
| 7/4 | | | | | | | | | | | | | | | | | | | | | | | |
| 7/5 | 4.8% | 0 | 0.0 | 0.0 | 0 | 0 | 0 | 0.0 | 0.0 | 0 | 0 | 1 | 0.0 | 0.0 | 25 | 39 | | | | | | | |
| 7/6 | | | | | | | | | | | | | | | | | | | | | | | |
| 7/7 | | | | | | | | | | | | | | | | | | | | | | | |
| Weekly | | 0 | 0.0 | 0.0 | 0 | 0 | 0 | 0.0 | 0.0 | 0 | 0 | 1 | 0.0 | 0.0 | 25 | 39 | | | | | | | |
| Season to date | | 344 | 3.5 | 0.0 | 10,294 | 25,917 | 958 | 4.0 | 0.0 | 38,693 | 97,930 | 136 | 5.9 | 0.0 | 4,670 | 11,517 | | | | | | | |

| TOTAL | | | | | | |
|----------------|-------------|---------|--------|--------|---------|---------|
| End Date | Sample Rate | # Smpld | % Desc | % Mort | # Coll | Index |
| 7/1 | | | | | | |
| 7/2 | | | | | | |
| 7/3 | 2.0% | 101 | 1.0 | 0.0 | 5,050 | 7,833 |
| 7/4 | | | | | | |
| 7/5 | 4.8% | 105 | 2.9 | 0.0 | 2,175 | 3,354 |
| 7/6 | | | | | | |
| 7/7 | | | | | | |
| Weekly | | 206 | 1.9 | 0.0 | 7,225 | 11,186 |
| Season to date | | 8,164 | 2.3 | 0.1 | 193,784 | 505,174 |



Notes: Condition percentages are calculated from sample numbers.

Subyearling chinook and coho include fry.

| Pacific Lamprey | | | | | | Western Brook Lamprey | | | | | |
|-----------------|---------|--------|------------|---------|--------|-----------------------|---------|--------|------------|---------|--------|
| Macrophthalmia | | | Ammocoetes | | | Ammocoetes | | | Ammocoetes | | |
| End Date | # Smpld | % Mort | # Coll | # Smpld | % Mort | # Coll | # Smpld | % Mort | # Coll | # Smpld | % Mort |
| 7/1 | | | | | | | | | | | |
| 7/2 | | | | | | | | | | | |
| 7/3 | 0 | 0.0 | 0 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7/4 | | | | | | | | | | | |
| 7/5 | 0 | 0.0 | 0 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7/6 | | | | | | | | | | | |
| 7/7 | | | | | | | | | | | |
| Weekly | 0 | 0.0 | 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 | 0 | 0 |

SECTION 2. Smolt and Lamprey Condition Monitoring Summary

SECTION 3. Incidental Summary

| | Bass Largemouth | Bass Smallmouth | Bluegill and Pumpkinseed | Bullhead | Carp | Catfish, Channel | Chiselmouth | Crappie species |
|----------------|--------------------|--------------------|-----------------------------|----------|------|---------------------|-------------|--------------------|
| This Week | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Season to Date | 0 | 14 | 6 | 0 | 2 | 1 | 0 | 7 |

| | 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 | 2 | 0 | 0 | 68 |

| | Redside Shiner | Sand Roller | Sculpin species | Stickleback 3 spine | Sucker species | Shad Adult | Shad Juvenile | Sturgeon White |
|----------------|-------------------|-------------|--------------------|------------------------|-------------------|---------------|------------------|-------------------|
| This Week | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Season to Date | 0 | 0 | 11 | 4 | 2 | 0 | 0 | 0 |

| | Trout Bull | Trout Cutthroat | Trout Rainbow | Walleye | Whitefish Mountain | Siberian Prawn | Chum Salmon | Banded Killifish |
|----------------|---------------|--------------------|------------------|---------|-----------------------|-------------------|----------------|---------------------|
| This Week | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Season to Date | 0 | 0 | 0 | 21 | 4 | 184 | 0 | 2 |

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 yesterday, 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 98.5% 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, tumbleweeds, pieces of terrestrial vegetation, and plastic.

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.

SECTION 6. Pictures



Unclipped Subyearling Fall Chinook smolt (*Oncorhynchus tshawytscha*), approximately 120 mm fork length, showing a few trematode spots, slight fin hemorrhaging, and an *Argulus sp.* copepod parasite near the left operculum. This specimen was sampled at the John Day Dam Smolt Facility on June 14, 2015.



Clipped Subyearling Fall Chinook smolt (*Oncorhynchus tshawytscha*), approximately 100 mm fork length, showing a bloated stomach and fin hemorrhaging, symptoms of Bacterial Kidney Disease (*Renibacterium salmoninarum*), similar to one sampled at the John Day Dam Smolt Facility on July 5, 2023.