

# The Dalles Dam Fishway Status Report

10/21/2017

Inspection Period: 10/15/2017-10/21/2017

## THE DALLES DAM



The Dalles Project-Fisheries  
 P.O. Box 564  
 The Dalles, OR 97058-9998  
 Phone: 541-506-3800

*Fishways are inspected twice daily plus one SCADA inspection*

| The Dalles Dam                  | Inspections<br>Out of Criteria | Criteria<br>Limit | Total Number of Inspections: 21                                   | Temperature: 59.3 °F |
|---------------------------------|--------------------------------|-------------------|---|----------------------|
|                                 |                                |                   | Comments  | Secchi: 4.9 feet     |
| <b>NORTH FISHWAY</b>            |                                |                   |   |                      |
| Exit differential               | 0                              | ≤ 0.5'            |   |                      |
| Count station differential      | 0                              | ≤ 0.3'            |   |                      |
| Weir crest depth                | 0                              | 1.0' ± 0.1'       |   |                      |
| Entrance differential           | 0                              | 1.0' - 2.0'       | 1.3   |                      |
| Entrance weir N1                | 0                              | depth (≥ 8')      | 9.2   |                      |
| Entrance weir N2                | 0                              | Closed            |   |                      |
| PUD Intake differential         | 0                              | ≤ 0.5'            |   |                      |
| <b>EAST FISHWAY</b>             |                                |                   |   |                      |
| Exit differential               | 0                              | ≤ 0.5'            |   |                      |
| Removable weirs 154-157         | 0                              | Per forebay       | Auto adjusts 1' increments Work cleaning circuit boxes performed. |                      |
| Weir 158-159 differential       | 0                              | 1.0' ± 0.1'       | 158 calibrated and adjusted.                                      |                      |
| Count station differential      | 0                              | ≤ 0.3'            | Picket leads raked as needed. Debris load light.                  |                      |
| Weir crest depth                | 0                              | 1.0' ± 0.1'       |   |                      |
| Junction pool weir JP6          | 0                              | 0.0               | 10.8  |                      |
| East entrance differential      | 0                              | 1.0' - 2.0'       | 1.5   |                      |
| Entrance weir E1                | 0                              | No criteria       |   |                      |
| Entrance weir E2                | 0                              | depth (≥ 8')      | 12.5  |                      |
| Entrance weir E3                | 0                              | depth (≥ 8')      | 12.5  |                      |
| Collection channel velocity     | 0                              | 1.5 - 4 fps       | 2.51  |                      |
| Transportation channel velocity | 0                              | 1.5 - 4 fps       | 2.31  |                      |
| North channel velocity          | 0                              | 1.5 - 4 fps       | 2.40  |                      |
| South channel velocity          | 0                              | 1.5 - 4 fps       | 3.26  |                      |
| West entrance differential      | 0                              | 1.0' - 2.0'       | 1.5   |                      |
| Entrance weir W1                | 0                              | depth (≥ 8')      | 8.3   |                      |
| Entrance weir W2                | 0                              | depth (≥ 8')      | 8.3   |                      |
| Entrance weir W3                | 0                              | No criteria       |   |                      |
| South entrance differential     | 0                              | 1.0' - 2.0'       | 1.5   |                      |
| Entrance weir S1                | 0                              | depth (≥ 8')      | 8.3   |                      |
| Entrance weir S2                | 0                              | depth (≥ 8')      | 8.3   |                      |
| <b>JUVENILE PASSAGE</b>         |                                |                   |   |                      |
| Sluiceway operation             | 0                              | Units 1, 8, 18    |   |                      |
| Turbine trashrack drawdown      | 0                              | <1.5', wkly       | range: 0.1-0.8'   |                      |
| Spill volume/pattern            | 0                              |                   | Spillway closed midnight Aug31                                    |                      |
| Turbine Unit Priority           | 0                              | per FPP           | MU 13-16 oos  |                      |
| Turbine 1% Efficiency           | 0                              | per FPP           |   |                      |

## OTHER ISSUES:

### **Birds/Sea lions:**

No sea lion sightings and very few foraging birds.

### **Operations**

North and east fishladders in full operation.

Spillway open 15K Oct 19, 21 and 22 due to construction vibration concerns at east fishladder .

Sluiceway open with 6 gates (units 1, 8 and 18)

### **Current Outages;**

T8 (MU15 & MU16) out for transformer failure. Transformer replacement 7/5/18.

MU17 out for overhaul. Return Oct 26.

### **Maintenance;**

East exit weir electrical panel FCQ7 partially installed. Engineering design and CADD drawings continues. Further installation during winter outage.

Rebuilding entrance weir and east exit weir spare gearboxes.

Designing fish lock upper and lower bulkhead replacement with concrete for improved isolation and fishladder protection.

Fishway dewatering schedule and work list draft reviewed. Items include; Diffuser valve rehab scope, dewater pump rehab, south weir rehab, Weir caps (lamprey)

Other repair maintenance plans for upcoming fiscal years; 154 -157 rehab/weir wheel replace, diffuser valve overhaul (rehab and decommission).

Fish related /non-fish funded items; Spillway assessment, spillway crane replace and spillgate 9. All awaiting funding.

All spillway items on Critical Infrastructure. Spillgate 9 on large cap list, projected for 2022.

### **Research/Construction/Contractors:**

*Fish Counters* - Normandau counters on site through Oct 31.

*Pikeminnow dam angling* - Done for season with a total catch at 1776

*AWS construction* - Planning season 2 schedule. Extensions Oct/Nov night work and Nov day work FPOM approved. Commissioning plan underway for Mar 31.

Vibration sensors installed on east ladder and each side of junction pool. Baseline data collection completed. Work monitoring started Oct16

*Lamprey minor mods* - Rounded entrance weir cap parts for all entrances recieved. Moorings to assist in assembling. Tribal lamprey trap hoist design pending.

*Railroad track removal* - Tailrace deck start Nov nights (FPOM approved)

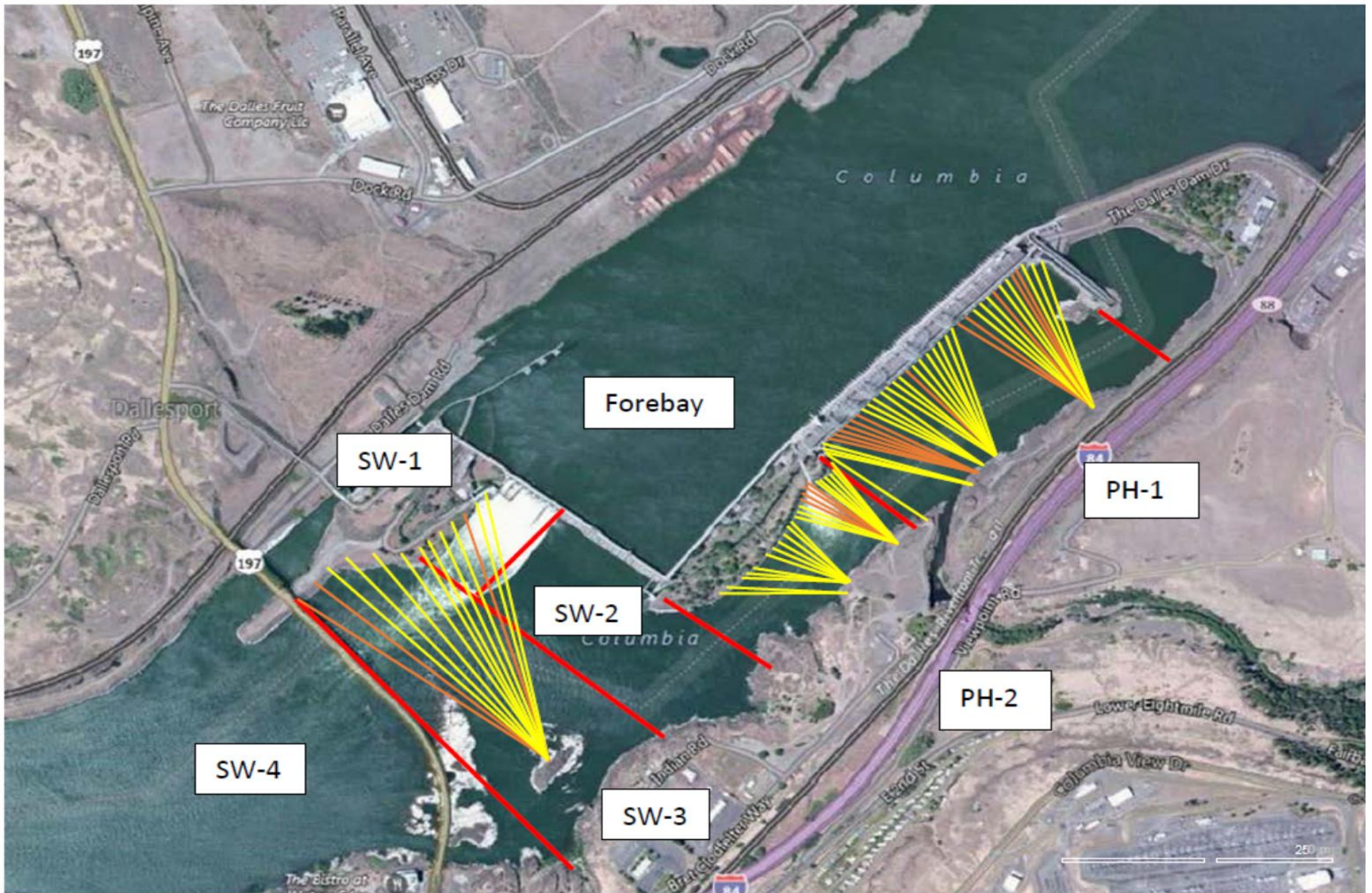
*Fish unit breaker replace*.- Manufacture this summer and install winter 2017. Switchover Jan 2018.

*Fish unit rehab* - Phase 1A report Jan 2018. Award 2020. Completion 2022.

*Transformer replacement* - Install start May 2018.

Approved by: Ron Twiner

Operation Project Manager The Dalles Dam



Red lines = avian zones

Yellow lines = current wires

Orange lines = down or missing wires

# 2017 Piscivorous Bird Counts

F=foraging, NF=non-foraging

| Date  | observer | time | Zone | Gull |    | Cormorant |    | Caspian tern |    | Grebe |    | Pelican |    | Other |    | Total birds in zone | Notes |
|-------|----------|------|------|------|----|-----------|----|--------------|----|-------|----|---------|----|-------|----|---------------------|-------|
|       |          |      |      | F    | NF | F         | NF | F            | NF | F     | NF | F       | NF | F     | NF |                     |       |
| 10/15 | JWR      | AM   | FB   | 0    | 0  | 1         | 5  | 0            | 0  | 0     | 21 | 0       | 0  | 0     | 0  | 27                  |       |
|       |          |      | PH1  | 0    | 0  | 0         | 3  | 0            | 0  | 0     | 0  | 0       | 0  | 0     | 0  | 3                   |       |
|       |          |      | PH2  | 1    | 0  | 0         | 0  | 0            | 0  | 0     | 0  | 0       | 0  | 0     | 0  | 1                   |       |
|       |          |      | SW1  | 0    | 0  | 0         | 0  | 0            | 0  | 0     | 0  | 0       | 0  | 0     | 0  | 0                   |       |
|       |          |      | SW2  | 0    | 0  | 0         | 0  | 0            | 0  | 0     | 0  | 0       | 0  | 0     | 0  | 0                   |       |
|       |          |      | SW3  | 0    | 14 | 0         | 13 | 0            | 0  | 0     | 0  | 0       | 0  | 0     | 0  | 27                  |       |
| 10/16 | JWR      | PM   | FB   | 0    | 0  | 1         | 0  | 0            | 0  | 0     | 23 | 0       | 0  | 0     | 0  | 24                  |       |
|       |          |      | PH1  | 0    | 0  | 0         | 11 | 0            | 0  | 0     | 0  | 0       | 0  | 0     | 0  | 11                  |       |
|       |          |      | PH2  | 7    | 0  | 0         | 0  | 0            | 0  | 0     | 0  | 0       | 0  | 0     | 0  | 7                   |       |
|       |          |      | SW1  | 0    | 0  | 0         | 0  | 0            | 0  | 0     | 0  | 0       | 0  | 0     | 0  | 0                   |       |
|       |          |      | SW2  | 0    | 0  | 0         | 0  | 0            | 0  | 0     | 0  | 0       | 0  | 0     | 0  | 0                   |       |
|       |          |      | SW3  | 0    | 26 | 0         | 8  | 0            | 0  | 0     | 0  | 0       | 0  | 0     | 0  | 34                  |       |
| 10/17 | JWR      | AM   | FB   | 1    | 0  | 1         | 3  | 0            | 0  | 0     | 24 | 0       | 0  | 0     | 0  | 29                  |       |
|       |          |      | PH1  | 0    | 0  | 0         | 15 | 0            | 0  | 0     | 0  | 0       | 0  | 0     | 0  | 15                  |       |
|       |          |      | PH2  | 12   | 0  | 0         | 0  | 0            | 0  | 0     | 0  | 0       | 0  | 0     | 0  | 12                  |       |
|       |          |      | SW1  | 0    | 0  | 0         | 0  | 0            | 0  | 0     | 0  | 0       | 0  | 0     | 0  | 0                   |       |
|       |          |      | SW2  | 0    | 0  | 0         | 0  | 0            | 0  | 0     | 0  | 0       | 0  | 0     | 0  | 0                   |       |
|       |          |      | SW3  | 0    | 24 | 0         | 17 | 0            | 0  | 0     | 0  | 0       | 0  | 0     | 0  | 41                  |       |
| 10/18 | JWR      | PM   | FB   | 0    | 0  | 1         | 8  | 0            | 0  | 0     | 0  | 0       | 0  | 0     | 0  | 9                   |       |
|       |          |      | PH1  | 0    | 0  | 0         | 6  | 0            | 0  | 0     | 0  | 0       | 0  | 0     | 0  | 6                   |       |
|       |          |      | PH2  | 5    | 0  | 0         | 0  | 0            | 0  | 0     | 0  | 0       | 0  | 0     | 0  | 5                   |       |
|       |          |      | SW1  | 0    | 0  | 0         | 0  | 0            | 0  | 0     | 0  | 0       | 0  | 0     | 0  | 0                   |       |
|       |          |      | SW2  | 0    | 0  | 1         | 0  | 0            | 0  | 0     | 0  | 0       | 0  | 0     | 0  | 1                   |       |
|       |          |      | SW3  | 0    | 26 | 0         | 13 | 0            | 0  | 0     | 0  | 0       | 0  | 0     | 0  | 39                  |       |
| 10/19 | JWR      | AM   | FB   | 0    | 0  | 0         | 15 | 0            | 0  | 0     | 0  | 0       | 0  | 0     | 0  | 15                  |       |
|       |          |      | PH1  | 0    | 0  | 0         | 3  | 0            | 0  | 0     | 0  | 0       | 0  | 0     | 0  | 3                   |       |
|       |          |      | PH2  | 2    | 0  | 0         | 0  | 0            | 0  | 0     | 0  | 0       | 0  | 0     | 0  | 2                   |       |
|       |          |      | SW1  | 0    | 0  | 0         | 0  | 0            | 0  | 0     | 0  | 0       | 0  | 0     | 0  | 0                   |       |
|       |          |      | SW2  | 0    | 0  | 1         | 0  | 0            | 0  | 0     | 0  | 0       | 0  | 0     | 0  | 1                   |       |
|       |          |      | SW3  | 0    | 31 | 0         | 16 | 0            | 0  | 0     | 0  | 0       | 0  | 0     | 0  | 47                  |       |
| 10/20 | GJF      | PM   | FB   | 0    | 0  | 0         | 8  | 0            | 0  | 0     | 0  | 0       | 0  | 0     | 0  | 0                   |       |
|       |          |      | PH1  | 0    | 0  | 0         | 7  | 0            | 0  | 0     | 0  | 0       | 0  | 0     | 0  | 0                   |       |
|       |          |      | PH2  | 2    | 0  | 2         | 0  | 0            | 0  | 0     | 0  | 0       | 0  | 0     | 0  | 0                   |       |
|       |          |      | SW1  | 0    | 0  | 0         | 0  | 0            | 0  | 0     | 0  | 0       | 0  | 0     | 0  | 0                   |       |
|       |          |      | SW2  | 0    | 0  | 2         | 0  | 0            | 0  | 0     | 0  | 0       | 0  | 0     | 0  | 0                   |       |
|       |          |      | SW3  | 0    | 37 | 0         | 8  | 0            | 0  | 0     | 0  | 0       | 0  | 0     | 0  | 0                   |       |
| 10/21 | GJF      | AM   | FB   | 0    | 0  | 0         | 54 | 0            | 0  | 0     | 16 | 0       | 0  | 0     | 0  | 5                   |       |
|       |          |      | PH1  | 0    | 0  | 0         | 0  | 0            | 0  | 0     | 0  | 0       | 0  | 0     | 0  | 46                  |       |
|       |          |      | PH2  | 0    | 0  | 0         | 5  | 0            | 0  | 0     | 0  | 0       | 0  | 0     | 0  | 0                   |       |
|       |          |      | SW1  | 0    | 0  | 0         | 0  | 0            | 0  | 0     | 0  | 0       | 0  | 0     | 0  | 0                   |       |
|       |          |      | SW2  | 8    | 0  | 2         | 1  | 0            | 0  | 0     | 0  | 0       | 0  | 0     | 0  | 2                   |       |
|       |          |      | SW3  | 0    | 56 | 0         | 22 | 0            | 0  | 0     | 0  | 0       | 0  | 0     | 0  | 46                  |       |
| SW4   | 0        | 70   | 0    | 2    | 0  | 0         | 0  | 0            | 0  | 0     | 0  | 0       | 82 |       |    |                     |       |

Key: BAEA = Bald Eagle; GBH = Great Blue Heron; COME = Common Merganser

### The Dalles East

| Date         | All Chinook | Adult Chinook | Jack Chinook | All Steelhead | Clipped Steelhead | Unclipped Steelhead | All Coho   | Adult Coho | Jack Coho | Sockeye   | Chum     | Pink     | Lamprey  |
|--------------|-------------|---------------|--------------|---------------|-------------------|---------------------|------------|------------|-----------|-----------|----------|----------|----------|
| 10/15        | 760         | 678           | 82           | 258           | 173               | 85                  | 175        | 168        | 7         | 0         | 0        | 0        | 0        |
| 10/16        | 437         | 372           | 65           | 175           | 125               | 50                  | 78         | 71         | 7         | 0         | 0        | 0        | 0        |
| 10/17        | 423         | 338           | 85           | 135           | 89                | 46                  | 59         | 59         | 0         | 0         | 0        | 0        | 0        |
| 10/18        | 482         | 422           | 60           | 152           | 90                | 62                  | 81         | 79         | 2         | 0         | 0        | 0        | 1        |
| 10/19        | 315         | 275           | 40           | 94            | 72                | 22                  | 38         | 36         | 2         | 0         | 0        | 0        | 0        |
| 10/20        | 675         | 601           | 74           | 231           | 158               | 73                  | 126        | 120        | 6         | 0         | 0        | 0        | 0        |
| 10/21        | 438         | 372           | 66           | 342           | 209               | 133                 | 276        | 238        | 38        | -1        | 0        | 0        | -1       |
| <b>total</b> | <b>3530</b> | <b>3058</b>   | <b>472</b>   | <b>1387</b>   | <b>916</b>        | <b>471</b>          | <b>833</b> | <b>771</b> | <b>62</b> | <b>-1</b> | <b>0</b> | <b>0</b> | <b>0</b> |

### The Dalles North

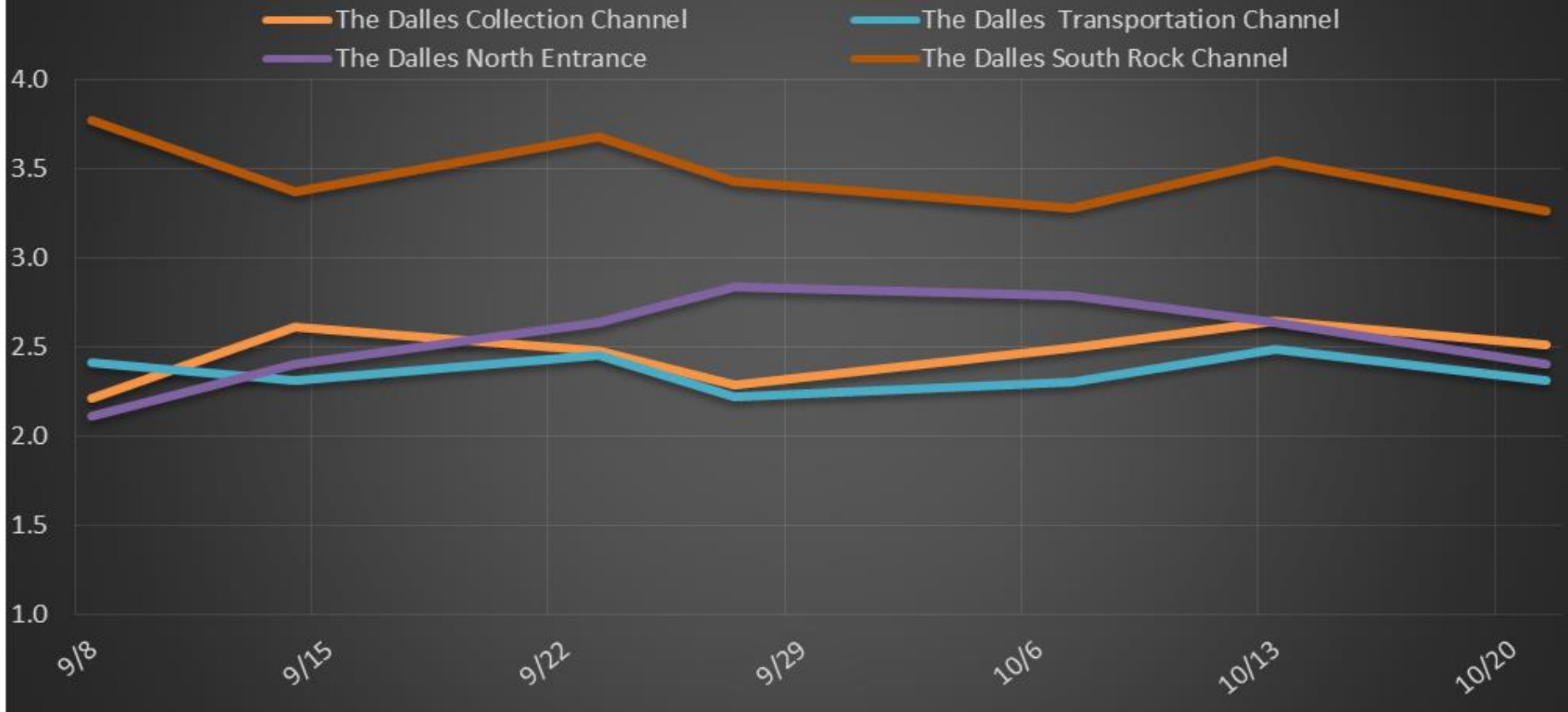
| Date           | All Chinook | Adult Chinook | Jack Chinook | All Steelhead | Clipped Steelhead | Unclipped Steelhead | All Coho    | Adult Coho  | Jack Coho   | Sockeye    | Chum       | Pink         | Lamprey    |
|----------------|-------------|---------------|--------------|---------------|-------------------|---------------------|-------------|-------------|-------------|------------|------------|--------------|------------|
| 10/15          | 33          | 17            | 16           | 31            | 17                | 14                  | 20          | 18          | 2           | 0          | 0          | 0            | 0          |
| 10/16          | 24          | 19            | 5            | 15            | 7                 | 8                   | 11          | 11          | 0           | 0          | 0          | 0            | 0          |
| 10/17          | 25          | 19            | 6            | 17            | 7                 | 10                  | 15          | 11          | 4           | 0          | 0          | 0            | 0          |
| 10/18          | 51          | 44            | 7            | 23            | 12                | 11                  | 6           | 6           | 0           | 0          | 0          | 0            | 0          |
| 10/19          | 129         | 107           | 22           | 67            | 44                | 23                  | 13          | 12          | 1           | 0          | 0          | 0            | 0          |
| 10/20          | 80          | 62            | 18           | 45            | 29                | 16                  | 17          | 16          | 1           | 0          | 0          | 0            | 0          |
| 10/21          | 162         | 145           | 17           | 129           | 82                | 47                  | 63          | 58          | 5           | 0          | 0          | 1            | 0          |
| <b>total</b>   | <b>504</b>  | <b>413</b>    | <b>91</b>    | <b>327</b>    | <b>198</b>        | <b>129</b>          | <b>145</b>  | <b>132</b>  | <b>13</b>   | <b>0</b>   | <b>0</b>   | <b>1</b>     | <b>0</b>   |
| <b>% North</b> | <b>12.5</b> | <b>11.9</b>   | <b>16.2</b>  | <b>19.1</b>   | <b>17.8</b>       | <b>21.5</b>         | <b>14.8</b> | <b>14.6</b> | <b>17.3</b> | <b>0.0</b> | <b>0.0</b> | <b>100.0</b> | <b>0.0</b> |

Salmon [http://www.fpc.org/environment/fcounts.asp?fr\\_cdy=2017&fr\\_cdm=10&fr\\_cdd=15&to\\_cdm=10&to\\_cdd=21&subbtn=salmon&op=sdaily](http://www.fpc.org/environment/fcounts.asp?fr_cdy=2017&fr_cdm=10&fr_cdd=15&to_cdm=10&to_cdd=21&subbtn=salmon&op=sdaily)

Lamprey [http://www.fpc.org/environment/fcounts.asp?fr\\_cdy=2017&fr\\_cdm=10&fr\\_cdd=15&to\\_cdm=10&to\\_cdd=21&subbtn=shad+lamprey&op=sdaily](http://www.fpc.org/environment/fcounts.asp?fr_cdy=2017&fr_cdm=10&fr_cdd=15&to_cdm=10&to_cdd=21&subbtn=shad+lamprey&op=sdaily)

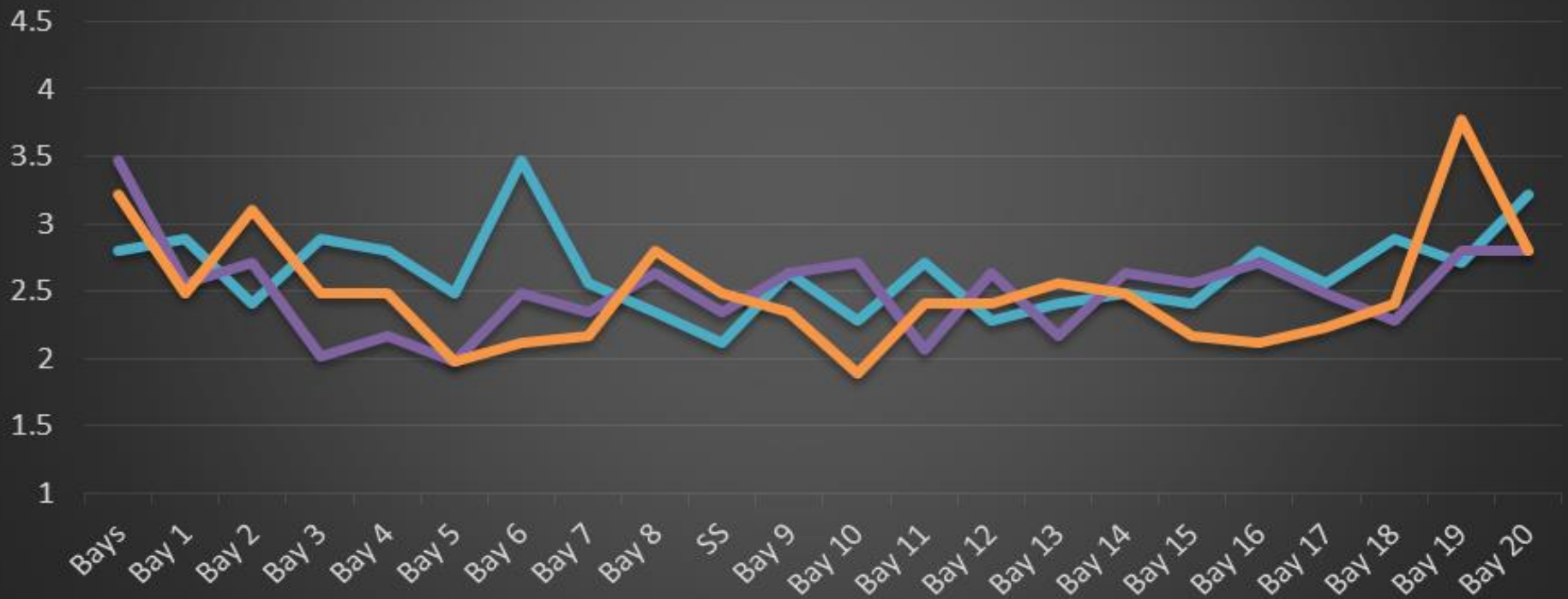


## The Dalles Dam Average Velocities (In criteria 1.5 - 4.0 fps)

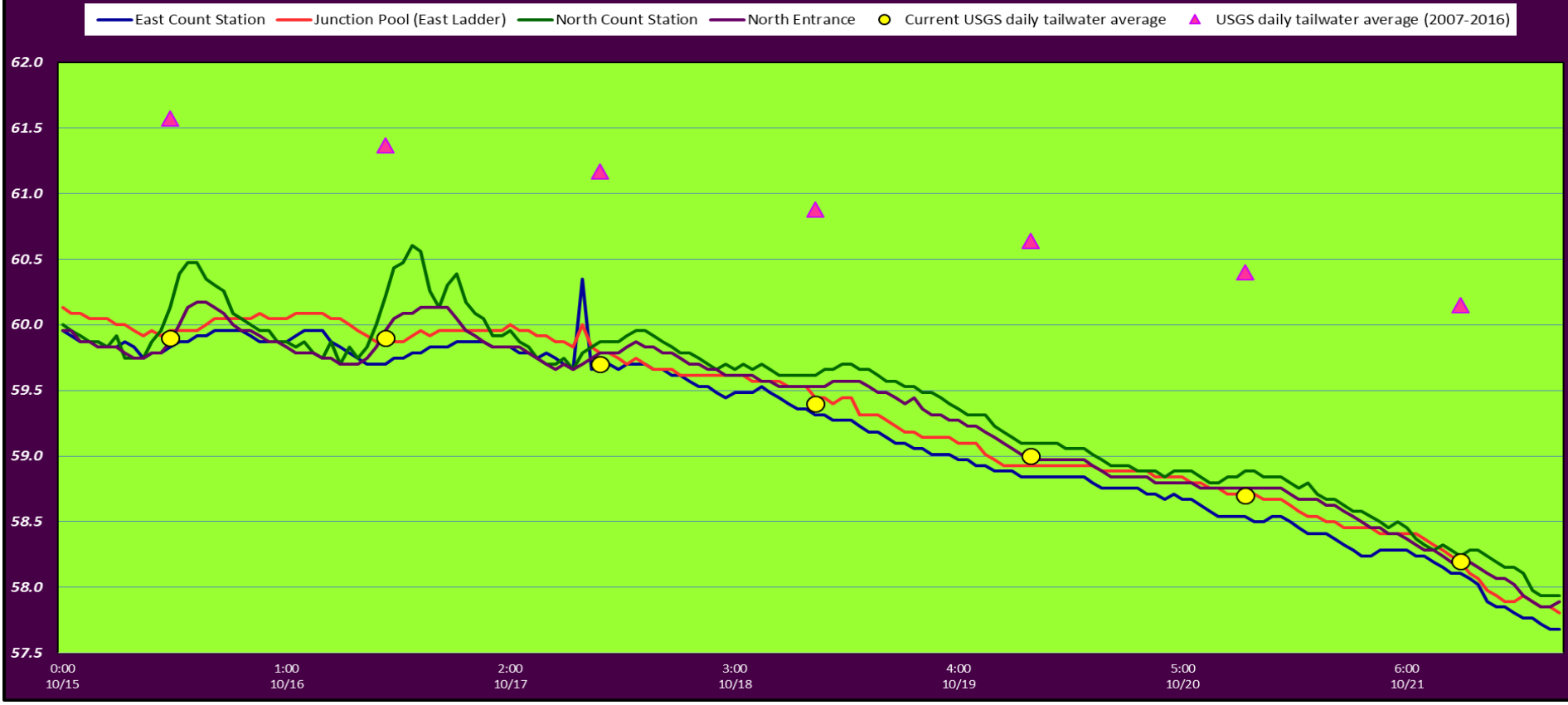


# The Dalles Dam Collection Channel Velocities (In Criteria 1.5 - 4.0 fps)

13-Oct 21-Oct 7-Oct



# The Dalles Dam Adult Fish Ladder(s) River/Water Temperatures





USGS: <http://pweb.crohms.org/im/documents/ops/temp201710.tbl.html>

| Secchi: |     | Temperatures |
|---------|-----|--------------|
| 10/15   | 5.0 | Sun 59.9     |
| 10/16   | 5.0 | Mon 59.9     |
| 10/17   | 5.0 | Tue 59.7     |
| 10/18   | 5.0 | Wed 59.4     |
| 10/19   | 5.0 | Thurs 59.0   |
| 10/20   | 4.0 | Fri 58.7     |
| 10/21   | 5.0 | Sat 58.2     |
|         | 4.9 | AVG 59.3     |

The Dalles Dam Daily Readings and Averages for  
Temperatures, Secchi, Entrances, and Spill

= Out of criteria

| Date:       | North Ladder   |            |               | East Ladder |             |             |             |               |            |            |                |              |            |            |
|-------------|----------------|------------|---------------|-------------|-------------|-------------|-------------|---------------|------------|------------|----------------|--------------|------------|------------|
|             | North Entrance |            | East Entrance |             |             |             |             | West Entrance |            |            | South Entrance |              |            |            |
|             | Differential   | N1 Depth   | Differential  | E1 Depth    | E2 Depth    | E3 Depth    | JP 6        | Differential  | W1 Depth   | W2 Depth   | W3 Depth       | Differential | S1 Depth   | S2 Depth   |
| 10/15       |                |            | 1.3           | 5.6         | 12.5        | 12.5        | 10.4        | 1.4           | 8.3        | 8.3        |                | 1.4          | 8.4        | 8.4        |
|             | 1.3            | 9.2        | 1.4           | 4.5         | 12.5        | 12.5        | 10.2        | 1.4           | 8.2        | 8.2        |                | 1.5          | 8.3        | 8.3        |
|             | 1.3            | 9.1        | 1.5           | 4.5         | 12.5        | 12.5        | 10.4        | 1.4           | 8.4        | 8.4        |                | 1.5          | 8.3        | 8.3        |
| 10/16       |                |            | 1.7           | 4.5         | 12.5        | 12.5        | 11.0        | 1.5           | 8.4        | 8.4        |                | 1.5          | 8.4        | 8.4        |
|             | 1.4            | 9.2        | 1.6           | 4.5         | 12.5        | 12.5        | 11.2        | 1.6           | 8.4        | 8.4        |                | 1.5          | 8.3        | 8.3        |
|             | 1.4            | 9.2        | 1.7           | 4.5         | 12.5        | 12.5        | 11.0        | 1.5           | 8.2        | 8.2        |                | 1.5          | 8.3        | 8.3        |
| 10/17       |                |            | 1.5           | 5.5         | 12.5        | 12.5        | 10.7        | 1.5           | 8.3        | 8.3        |                | 1.5          | 8.3        | 8.3        |
|             | 1.3            | 9.2        | 1.5           | 5.5         | 12.5        | 12.5        | 10.9        | 1.5           | 8.3        | 8.3        |                | 1.5          | 8.3        | 8.3        |
|             | 1.4            | 9.2        | 1.5           | 5.5         | 12.5        | 12.5        | 10.9        | 1.5           | 8.4        | 8.4        |                | 1.5          | 8.3        | 8.3        |
| 10/18       |                |            | 1.5           | 5.5         | 12.5        | 12.5        | 11.0        | 1.5           | 8.3        | 8.3        |                | 1.5          | 8.3        | 8.3        |
|             | 1.4            | 9.1        | 1.5           | 5.4         | 12.5        | 12.5        | 10.8        | 1.5           | 8.2        | 8.2        |                | 1.5          | 8.2        | 8.2        |
|             | 1.3            | 9.2        | 1.5           | 5.6         | 12.6        | 12.6        | 11.3        | 1.5           | 8.4        | 8.4        |                | 1.6          | 8.3        | 8.3        |
| 10/19       |                |            | 1.6           | 5.6         | 12.6        | 12.5        | 10.7        | 1.5           | 8.4        | 8.4        |                | 1.4          | 8.4        | 8.4        |
|             | 1.4            | 9.2        | 1.5           | 5.6         | 12.5        | 12.5        | 10.9        | 1.5           | 8.2        | 8.2        |                | 1.5          | 8.3        | 8.3        |
|             | 1.3            | 9.2        | 1.6           | 5.4         | 12.5        | 12.5        | 10.9        | 1.6           | 8.3        | 8.3        |                | 1.5          | 8.4        | 8.4        |
| 10/20       |                |            | 1.5           | 5.4         | 12.5        | 12.4        | 10.7        | 1.5           | 8.3        | 8.3        | 1.5            | 8.2          | 8.2        |            |
|             | 1.3            | 9.2        | 1.6           | 5.4         | 12.5        | 12.5        | 10.9        | 1.6           | 8.3        | 8.3        | 1.5            | 8.4          | 8.4        |            |
|             | 1.3            | 9.1        | 1.5           | 6.9         | 12.4        | 12.5        | 10.9        | 1.3           | 8.3        | 8.3        | 1.5            | 8.3          | 8.3        |            |
| 10/21       |                |            | 1.3           | 5.6         | 12.6        | 12.6        | 10.3        | 1.4           | 8.4        | 8.4        | 1.5            | 8.3          | 8.3        |            |
|             | 1.2            | 9.2        | 1.5           | 5.5         | 12.6        | 12.5        | 10.8        | 1.4           | 8.3        | 8.3        | 1.5            | 8.3          | 8.3        |            |
|             | 1.3            | 9.2        | 1.3           | 5.6         | 12.6        | 12.6        | 10.3        | 1.4           | 8.4        | 8.4        | 1.5            | 8.3          | 8.3        |            |
| <b>AVG:</b> | <b>1.3</b>     | <b>9.2</b> | <b>1.5</b>    | NO CRITERIA | <b>12.5</b> | <b>12.5</b> | <b>10.8</b> | <b>1.5</b>    | <b>8.3</b> | <b>8.3</b> | NO CRITERIA    | <b>1.5</b>   | <b>8.3</b> | <b>8.3</b> |

Fishways are inspected twice daily plus one SCADA inspection.



AWS pipes staged on WA shore ready for install



AWS digging resumes.