## The Dalles Dam Fishway Status Report

01/17/2021

Inspection Period: 01/10-01/16





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

| The Dalles Dam             | Inspections | Criteria       |   | 7      | Temperature:            | 42.1    | °F   |     |
|----------------------------|-------------|----------------|---|--------|-------------------------|---------|------|-----|
| The Danes Dani             | 000         | Limit          | Comments: fishways functional                   |        | Weekly Average Secchi:  |         |      | 4.6 |
|                            |             |                | NORTH FISHWAY                                   |        |                         |         |      |     |
| 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           |                | 9.6   |        |                         |         |      |     |
| Entrance weir N2           | 0           | Closed         |   |        |                         |         |      |     |
| PUD Intake differential    | 7           | ≤ 0.5'         | TDM unable to remove significant floating weeds | buildu | ıp. North FB index data | unrelia | ble. |     |
|                            |             |                | EAST FISHWAY                                    |        |                         |         |      |     |
|                            |             |                |   |        |                         |         |      |     |
|                            |             |                |   |        |                         |         |      |     |
|                            |             |                |   |        |                         |         |      |     |
|                            |             |                |   |        |                         |         |      |     |
|                            |             |                |   |        |                         |         |      |     |
|                            | Fishway     |                |   |        |                         |         |      |     |
|                            | closed      |                |   |        |                         |         |      |     |
|                            |             |                |   |        |                         |         |      |     |
|                            |             |                |   |        |                         |         |      |     |
|                            |             |                |   |        |                         |         |      |     |
|                            |             |                |   |        |                         |         |      |     |
|                            |             |                |   |        |                         |         |      |     |
| North channel velocity     | 0           | 1.5 - 4 fps    | 2.69 fps, 1/14/2021                             |        |                         |         |      |     |
|                            |             |                |   |        |                         |         |      |     |
|                            |             |                |   |        |                         |         |      |     |
|                            |             |                |   |        |                         |         |      |     |
|                            | Fishway     |                |   |        |                         |         |      |     |
|                            | closed      |                |   |        |                         |         |      |     |
|                            |             |                |   |        |                         |         |      |     |
|                            |             |                |   |        |                         |         |      |     |
|                            |             |                |   |        |                         |         |      |     |
|                            |             |                | JUVENILE PASSAGE                                |        |                         |         |      |     |
| Sluicegate operation       | 0           | Units 1, 3, 18 | MU8 OOS and MU1-2 OOS                           |        |                         |         |      |     |
| Turbine trashrack drawdown | 0           |                | 11/26/2020 checked, all in criteria.            |        |                         |         |      |     |
| Spill volume/pattern       | 0           | 1 to 8         | Spill closed 9/1/2020.                          |        |                         |         |      |     |
| Turbine Unit Priority      | 0           | per FPP        | All available MUs running according to FPP.     |        |                         |         |      |     |
| Gatewells                  | U           | POLLI          | 1/16/2021 fish check, Some adult shad mortality |        |                         |         |      |     |

#### OTHER ISSUES:

#### **Current Unit Outages**

- Line 1, MU1, & MU2 OOS for T1 replacement MU2 Overhaul and MU1 Annual through 2/28/2021
- T10 (MU19 & 20) FOOS through 10/28/20201/17/2021
- SSO1 OOS for Overhaul and DC Governor oil Pump Install 0630 11/2/2020 1700 1/14/2021

Inspection Period: 01/10-01/16

- FU2 OOS 0001 12/1/2020 – 1700 1/21/2021 for Annual & TA Vault Demo

T6 OOS 12/14/2020 - 1700 12/21/2020 for GSU Re-Work, Oil Leak Repairs

#### Maintenance

Repairing wind damaged debris guard for north fishladder exit.

PUD intake rake out of service due to power track damage. Exploring repair options. Temporary repair planned for 2021 season.

Five of 6 east fishway collection channel dewatering pumps removed for repair/rehab. Work to resume FY21.

East and north fishway automation (SCADA) near complete for east exit and east entrance. Commission next week.

Spillway assessment (MRER); Spillgate 9 trunnion pin included.

Calibration checks on North fishway entrance and exits 12/25/2020, all within criteria.

Diffuser grating panel missing at east entrance. Dive repair completed.

#### **Predators**

Moderate/high gull numbers. Refer to avian graph tab for bird numbers. Bald eagles have arrived to feed on shad fall back.

Green laser use for piscivorous bird hazing testing continues. Effective on roosting birds during low light.

Investigating facionery for forebay tower cormorants.

Pikeminnow dam angling resumes next May. All invasive bass/walleye by-catch release to continue per state requirement.

#### Research/Construction/Contractors

AWS intake trashrack - EDR funded for FY21 to investigate solution for debris plugging issue.

PITAGS north and east fishladder data collection at north count stations continues. East antenna annual maintenance this month during dewatering.

Fish unit rehab - Phase 1A on hold. Planning operation with AWS backup water supply during construction.

Recovered 46 PIT tag numbers with ground scanners on mid channel island west of SW4, known gull and pelican resting area.

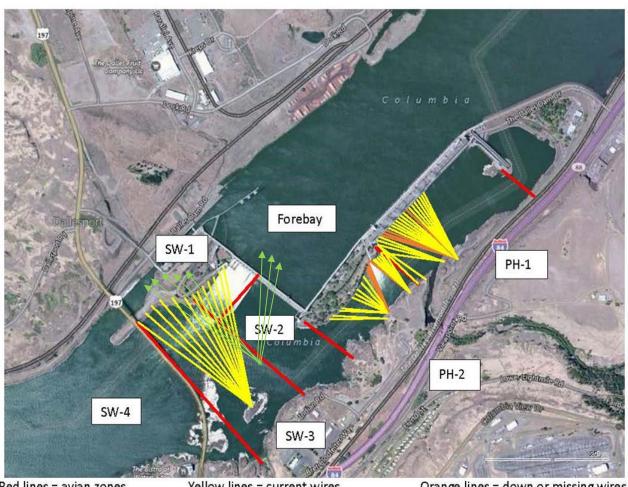
#### Fishway Operations

North fish ladder in full operation-East ladder dewatered 12/2

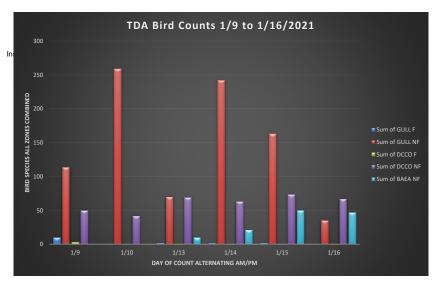
lower north ladder 2.69 fps, 1/14/2020

Approved by: Ron Twiner, Operation Project Scanning for PITs.

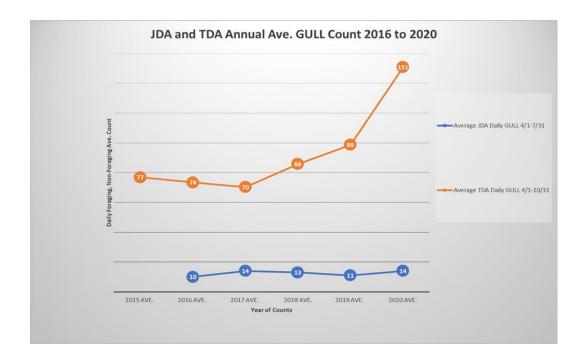
# New Avian Lines and laser deterrent zones







2.69 fps, 1/14/2020 Scanning for PITs.





| _    |         |       |      |
|------|---------|-------|------|
|      | Secchi: |       | °F   |
| 1/10 | 5.0     | Sun   | 41.9 |
| 1/11 | 5.0     | Mon   | 42.0 |
| 1/12 | 5.0     | Tue   | 42.0 |
| 1/13 | 5.0     | Wed   | 42.1 |
| 1/14 | 4.0     | Thurs | 42.3 |
| 1/15 | 4.0     | Fri   | 42.2 |
| 1/16 | 4.0     | Sat   | 42.1 |
|      | 4.6     | AVG   | 42.1 |
|      |         |       |      |

USGS Jan

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

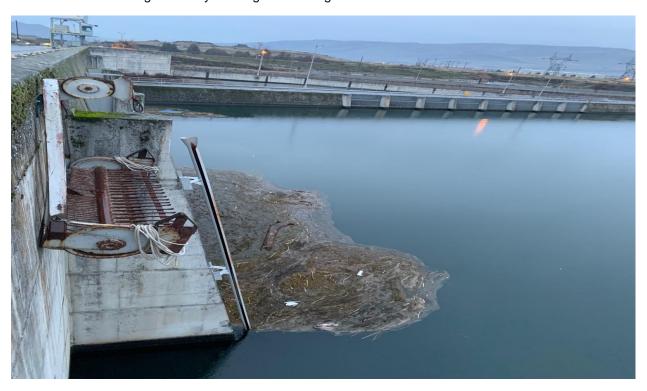
SCADA INSPECTION out of criteria

|          | North Ladder |          | East Ladder           |          |          |          |      |              |             |         |    |                |    |    |
|----------|--------------|----------|-----------------------|----------|----------|----------|------|--------------|-------------|---------|----|----------------|----|----|
| Date:    |              |          | East Entrance         |          |          |          |      |              | West Er     | ntrance |    | South Entrance |    |    |
|          | Differential | N1 Depth | Differential          | E1 Depth | E2 Depth | E3 Depth | JP 6 | Differential | W1          | W2      | W3 | Differential   | S1 | S2 |
| 1/10     | 1.4          | 0.4      |                       |          |          |          |      |              |             |         |    |                |    |    |
| 1/10     | 1.4          | 9.4      |                       |          |          |          |      |              |             |         |    |                |    |    |
| 1/11 1.4 | 4.4          | 0.4      |                       |          |          |          |      |              |             |         |    |                |    |    |
|          | 1.4          | 9.4      |                       |          |          |          |      |              |             |         |    |                |    |    |
| 1/12     | 4.2          | 0.0      |                       |          |          |          |      |              |             |         |    |                |    |    |
| 1/12     | 1.3          | 9.8      |                       |          |          |          |      |              |             |         |    |                |    |    |
| 1/13     | 4.2          | 10.0     |                       |          |          |          | Го   | ct I addar 4 | d 0 o t 0 . | d       |    |                |    |    |
| 1/13     | 1.3          | 10.0     | East Ladder dewatered |          |          |          |      |              |             |         |    |                |    |    |
| 1/14     | 1.3          | 0.0      |                       |          |          |          |      |              |             |         |    |                |    |    |
| 1/14     | 1.5          | 9.9      |                       |          |          |          |      |              |             |         |    |                |    |    |
| 1/15     | 1.2          | 0.4      |                       |          |          |          |      |              |             |         |    |                |    |    |
| 1/15 1.2 | 1.2          | 9.4      |                       |          |          |          |      |              |             |         |    |                |    |    |
| 1/16     | 1.4          | 9.5      |                       |          |          |          |      |              |             |         |    |                |    |    |
| 1/10     | 1.4          | 9.5      |                       |          |          |          |      |              |             |         |    |                |    |    |
| AVG:     | 1.3          | 9.6      |                       |          |          |          |      |              |             |         |    |                |    |    |

Fishways are inspected once daily.



Cordie caught actually working. Scanning for PITs.



North PUD intake with high debris loading. Rake system out of commission.