

The Dalles Dam Fishway Status Report

03/29/20

Inspection Period: 3/22-3/28, 2020

THE DALLES DAM



US Army Corps
of Engineers
Portland District

The Dalles Project-Fisheries
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| | | | | |
|-----------------------|------------------------|-----------------------|----------------------------------------|-----------------------------------|
| The Dalles Dam | Inspections OOC | Criteria Limit | Total Number of Inspections: 21 | Temperature: 44.1 °F |
| | | | Comments: | Weekly Average Secchi: 3.6 |

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' | Average for week = 1.3 |
| Entrance weir N1 | 0 | depth (≥ 8') | Average for week = 8.9 |
| Entrance weir N2 | 0 | Closed | |
| PUD Intake differential | 2 | ≤ 0.5' | Differential problems likely related to FB index damage. |

EAST FISHWAY

| | | | |
|---------------------------------|---|--------------|-----------------------------------------------|
| Exit differential | 0 | ≤ 0.5' | |
| Removable weirs 154-157 | 0 | Per forebay | |
| Weir 158-159 differential | 0 | 1.1' ± 0.1' | |
| Count station differential | 0 | ≤ 0.3' | |
| 153 Weir crest depth | 1 | 1.1' ± 0.1' | |
| Junction pool weir JP6 | 0 | ≤ 7.0' | |
| East entrance differential | 0 | 1.0' - 2.0' | Average for week = 1.5 |
| Entrance weir E1 | 0 | No criteria | Average for week = 5.1 |
| Entrance weir E2 | 0 | depth (≥ 8') | Average for week = 11.5 |
| Entrance weir E3 | 0 | depth (≥ 8') | Average for week = 11.5 |
| Collection channel velocity | 0 | 1.5 - 4 fps | 3.09 fps Range: 3.58 fps MU21 - 2.21 fps MU15 |
| Transportation channel velocity | 0 | 1.5 - 4 fps | 2.44 fps |
| North channel velocity | 0 | 1.5 - 4 fps | 2.60 fps |
| South channel velocity | 0 | 1.5 - 4 fps | 3.79 fps |
| West entrance differential | 0 | 1.0' - 2.0' | Average for week = 1.5 |
| Entrance weir W1 | 0 | depth (≥ 8') | Average for week = 10.2 |
| Entrance weir W2 | 0 | depth (≥ 8') | Average for week = 10.2 |
| Entrance weir W3 | 0 | No criteria | |
| South entrance differential | 0 | 1.0' - 2.0' | Average for week = 1.5 |
| Entrance weir S1 | 0 | depth (≥ 8') | Average for week = 8.3 |
| Entrance weir S2 | 0 | depth (≥ 8') | Average for week = 8.3 |

JUVENILE PASSAGE

| | | | |
|----------------------------|---|----------------|---------------------------------------------------------------------------------------------|
| Sluiceway operation | 6 | Units 1, 8, 18 | MU1 OOS with sluiceways open (3/23-3/24) |
| Turbine trashrack drawdown | 0 | <1.5', biwklly | 3/26/2020 All differentials were within criteria and no fish mortality visible on surfaces. |
| Spill volume/pattern | 0 | None | |
| Turbine Unit Priority | 6 | per FPP | MU1 OOS with sluiceways open (3/23-3/24) |
| Gatewells | 0 | Weekly | 3/26/2020 All differentials were within criteria and no fish mortality visible on surfaces. |

OTHER ISSUES:

Fishway Operations

North fish ladder in full operation

East fish ladder in full operation

Spillway closed

Sluiceway opened with 2 open sluiceways at unit 1 and 18.

Unit Outages

T10 (MU19 & 20) FOOS through 10/28/2021 due to acetylene levels

MU1 and MU2 restricted to 160 MW combined through 5/28/2020

MU8 OOS 1/21/2020 - 3/19/2020 for Overhaul.

Maintenance

Calibration check 3/24/20; E1, S2 out of calibration, within criteria.

Five of 6 east fishway collection channel dewatering pumps removed for repair/rehab. Awaiting new pump motors for installation.

East fishway automation replacement installation possibly delayed due to COVID staff plan. PLC box assembly starting hopefully in April.

Spillway assessment (MRER); No funding for FY20. Spillgate 9 fish priority included.

COVID is giving major challenges accomplishing maintenance tasks. Maintenance leaders are working on plans to still accomplish as much as possible in safe manner.

Predators

Green laser use for piscivorous bird hazing testing on hold until all safety concerns and requirements are met. Refer to Avian zones tab.

USDA hazing resumes 4/15/20. Preseason planning meeting complete.

No sea lion observations this week.

Research/Construction/Contractors

Four Peaks fish counting resumes Apr1. Count stations prepared

AWS backup - Commissioning completed. Ready for operation if needed. Determining operation test times.

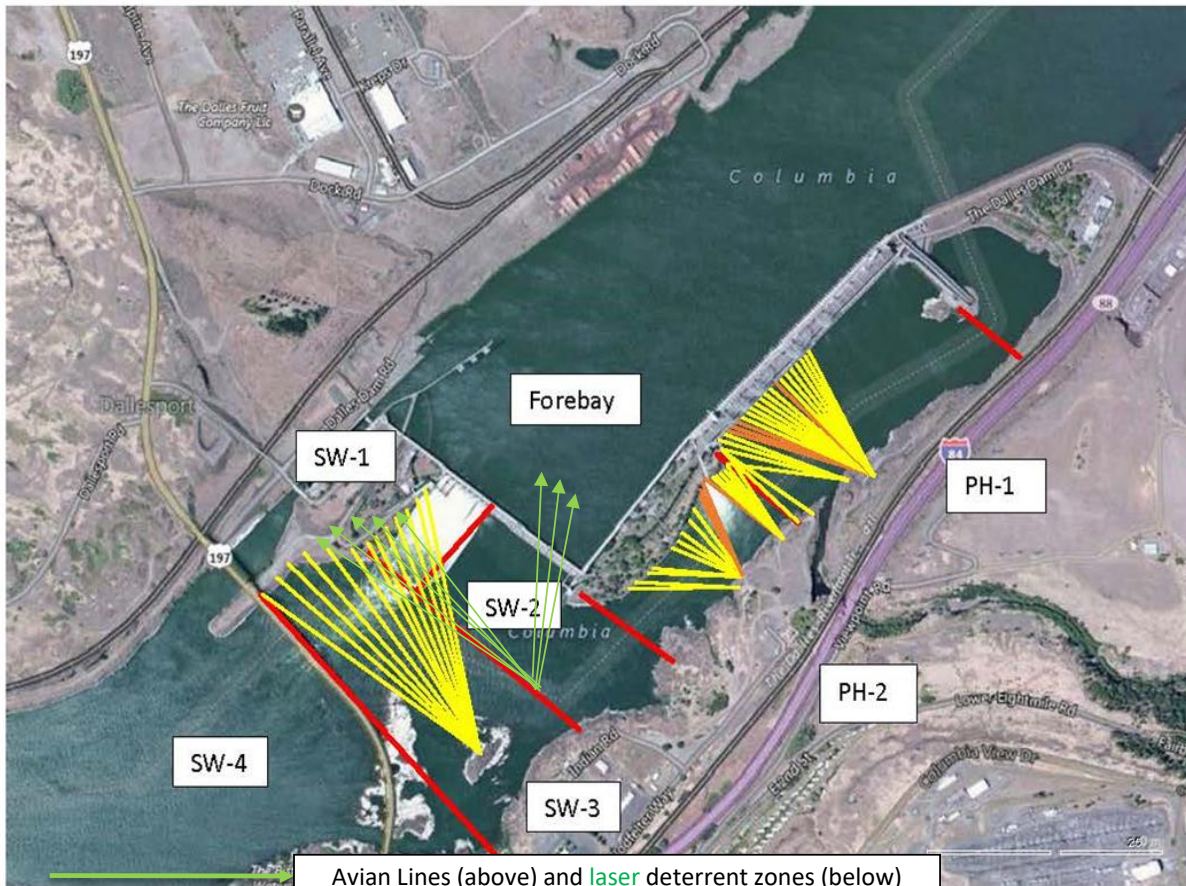
PITAGS north and east fishladder data collection at count stations continues.

Dam angling resumes mid May. **Bass/Walleye released due to state classification of game species.**

Fish unit breaker replace.- Work complete

Fish unit rehab - Phase 1A. Planning operation scenario with AWS backup water supply during construction. No funding.

Approved by: Mike Colesar, Operation Project Manager, The Dalles Dam

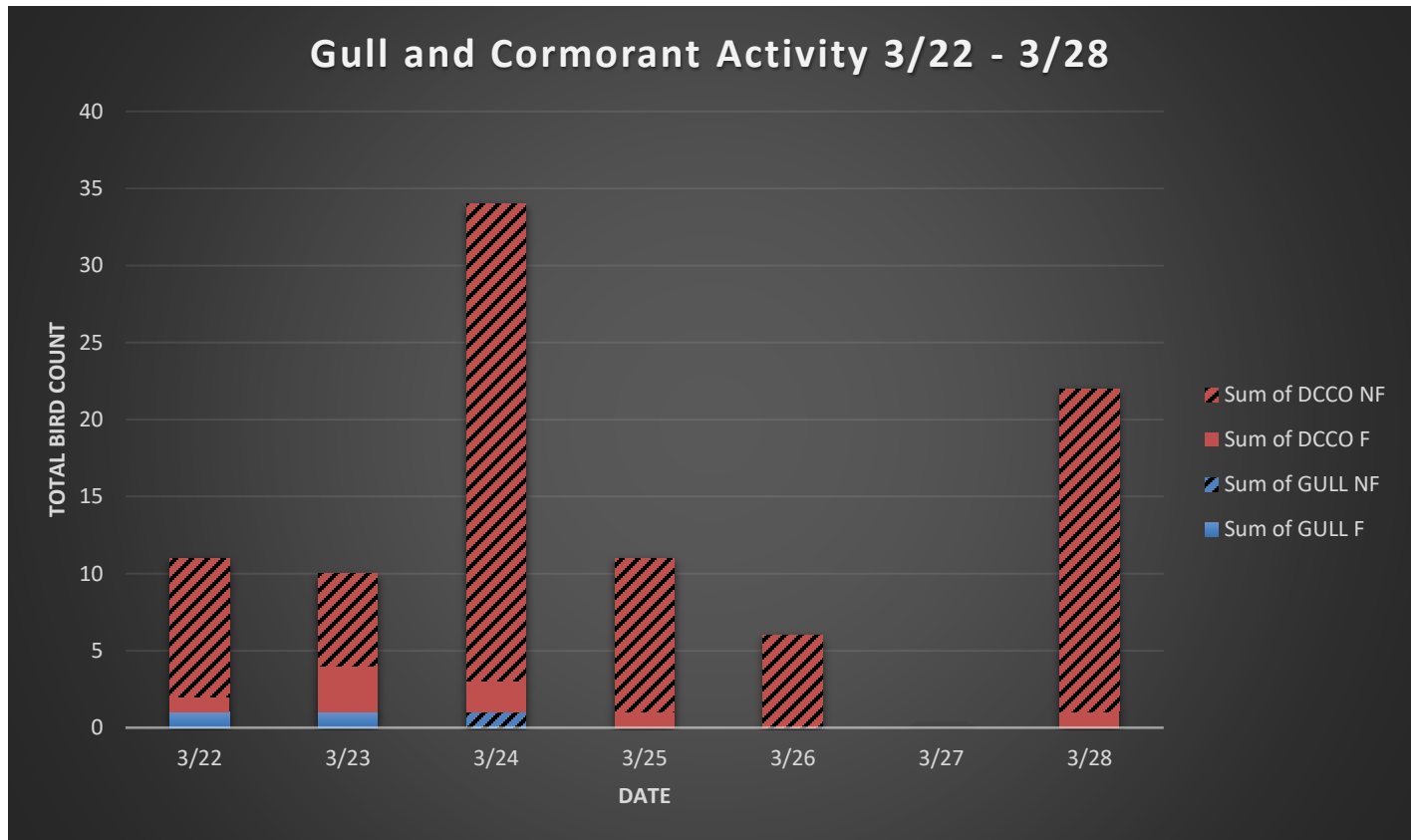


Red lines = avian zones

Avian Lines (above) and laser deterrent zones (below)

Yellow lines = current wires

Orange lines = down or missing wires

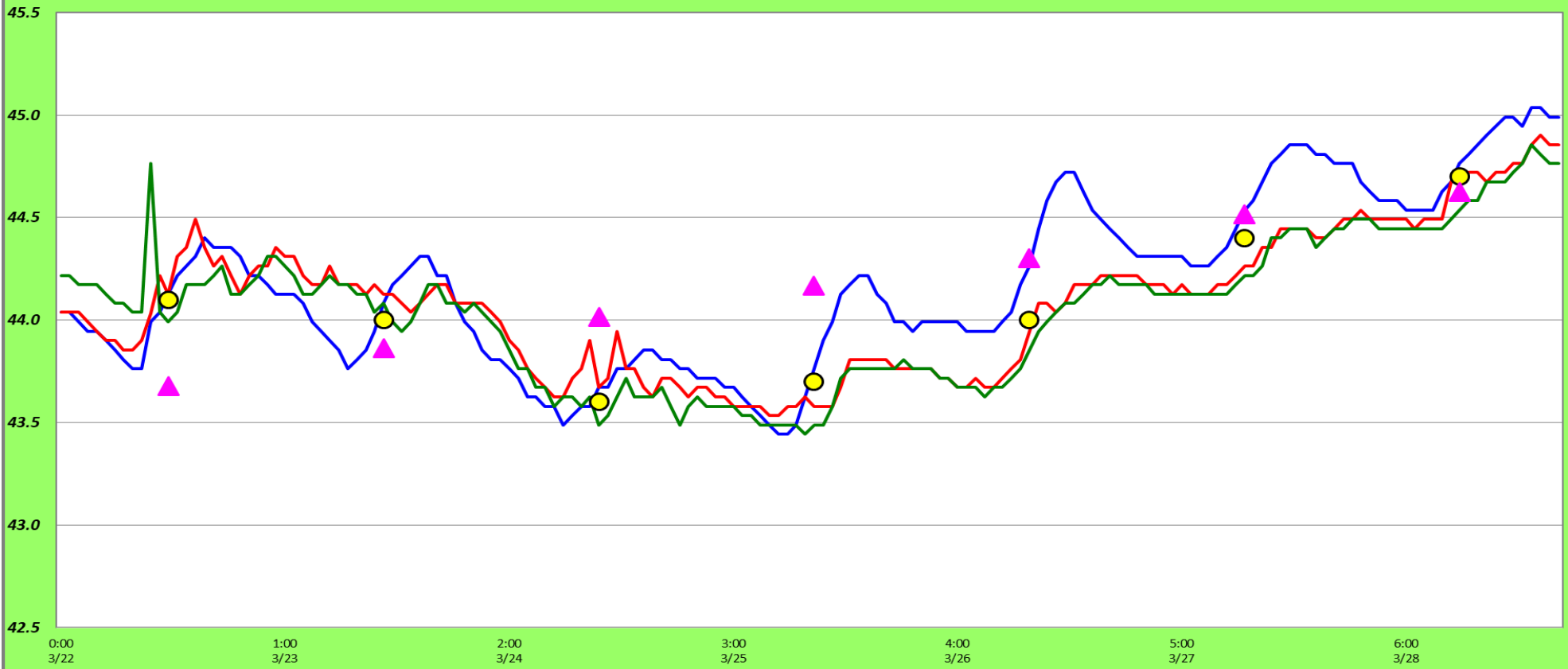


NF= not foraging
 F= foraging
 DCCO= cormorant
 Gull= gull

NO DCCO present on nests at this time!

Adult Fish Ladder(s) - River Temperatures

— East Count Station — North Count Station — North Entrance ● Current USGS Daily Average ▲ USGS Daily Average (2007-2019)



| USGS: | | | |
|---------|-----|-------|------|
| Secchi: | | °F | |
| 3/22 | 3.5 | Sun | 44.1 |
| 3/23 | 3.0 | Mon | 44.0 |
| 3/24 | 3.5 | Tue | 43.6 |
| 3/25 | 3.0 | Wed | 43.7 |
| 3/26 | 4.0 | Thurs | 44.0 |
| 3/27 | 4.0 | Fri | 44.4 |
| 3/28 | 4.5 | Sat | 44.7 |
| | 3.6 | AVG | 44.1 |

[March Temps](#)

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

SCADA INSPECTION
out of criteria

| Date: | North Ladder | | East Ladder | | | | | | | | | | South Entrance | | |
|-------------|--------------|------------|---------------|------------|-------------|-------------|------------|---------------|-------------|-------------|------------|--------------|----------------|-----|--|
| | Differential | N1 Depth | East Entrance | | | | | West Entrance | | | W3 | Differential | S1 | S2 | |
| | | | Differential | E1 Depth | E2 Depth | E3 Depth | JP 6 | Differential | W1 | W2 | | | | | |
| 3/22 | | | 1.4 | 2.4 | 11.4 | 11.4 | 8.9 | 1.4 | 10.0 | 10.0 | closed | 1.6 | 8.1 | 8.1 | |
| | 1.1 | 9.0 | 1.6 | 2.4 | 11.0 | 11.0 | 9.0 | 1.5 | 10.1 | 10.1 | | 1.4 | 8.3 | 8.3 | |
| | 1.2 | 9.0 | 1.5 | 2.5 | 11.0 | 11.0 | 9.0 | 1.5 | 10.1 | 10.1 | | 1.5 | 8.3 | 8.3 | |
| 3/23 | | | 1.8 | 2.5 | 10.9 | 10.9 | 9.8 | 1.7 | 10.4 | 10.4 | | 1.6 | 8.4 | 8.2 | |
| | 1.2 | 8.9 | 1.5 | 6.1 | 11.1 | 11.1 | 9.2 | 1.4 | 10.3 | 10.3 | | 1.4 | 8.4 | 8.4 | |
| | 1.2 | 9.0 | 1.5 | 6.1 | 11.1 | 11.1 | 9.2 | 1.4 | 10.1 | 10.1 | | 1.5 | 8.3 | 8.3 | |
| 3/24 | | | 1.7 | 6.0 | 10.9 | 11.0 | 9.7 | 1.5 | 10.0 | 10.0 | | 1.6 | 8.2 | 8.3 | |
| | 1.3 | 8.9 | 1.6 | 5.9 | 10.9 | 10.9 | 9.2 | 1.5 | 10.0 | 10.0 | | 1.4 | 8.3 | 8.3 | |
| | 1.2 | 8.9 | 1.6 | 6.1 | 10.9 | 10.9 | 9.1 | 1.5 | 10.1 | 10.1 | | 1.4 | 8.2 | 8.2 | |
| 3/25 | | | 1.5 | 6.0 | 11.1 | 11.1 | 9.5 | 1.4 | 10.0 | 10.0 | | 1.5 | 8.3 | 8.2 | |
| | 1.3 | 8.7 | 1.7 | 6.0 | 11.1 | 11.1 | 9.5 | 1.5 | 10.0 | 10.0 | 1.5 | 8.4 | 8.3 | | |
| | 1.4 | 8.9 | 1.5 | 6.0 | 11.9 | 12.0 | 10.6 | 1.6 | 9.6 | 9.9 | 1.5 | 8.3 | 8.4 | | |
| 3/26 | | | 1.4 | 6.0 | 12.0 | 11.9 | 10.4 | 1.5 | 9.9 | 9.9 | 1.5 | 8.3 | 8.3 | | |
| | 1.4 | 9.0 | 1.5 | 5.9 | 11.9 | 12.0 | 10.3 | 1.6 | 10.1 | 10.1 | 1.4 | 8.4 | 8.4 | | |
| | 1.4 | 8.8 | 1.5 | 6.1 | 12.0 | 12.1 | 11.0 | 1.7 | 10.0 | 10.0 | 1.5 | 8.3 | 8.3 | | |
| 3/27 | | | 1.6 | 6.1 | 12.1 | 12.1 | 11.0 | 1.5 | 10.5 | 10.5 | 1.5 | 8.3 | 8.3 | | |
| | 1.3 | 9.1 | 1.5 | 6.0 | 12.0 | 12.0 | 10.9 | 1.5 | 10.6 | 10.6 | 1.5 | 8.3 | 8.3 | | |
| | | | 1.4 | 5.0 | 12.1 | 12.1 | 10.2 | 1.5 | 10.5 | 10.5 | 1.4 | 8.4 | 8.4 | | |
| 3/28 | | | 1.4 | 5.0 | 12.1 | 12.0 | 10.5 | 1.4 | 10.5 | 10.5 | 1.6 | 8.1 | 8.1 | | |
| | 1.3 | 9.0 | 1.3 | 5.0 | 12.0 | 12.1 | 10.6 | 1.4 | 10.4 | 10.4 | 1.5 | 8.2 | 8.2 | | |
| | 1.3 | 8.9 | 1.4 | 4.0 | 11.9 | 11.9 | 9.7 | 1.3 | 10.4 | 10.4 | 1.4 | 8.3 | 8.2 | | |
| AVG: | 1.3 | 8.9 | 1.5 | 5.1 | 11.5 | 11.5 | 9.9 | 1.5 | 10.2 | 10.2 | 1.5 | 8.3 | 8.3 | | |

Fishways are inspected once daily plus one SCADA inspection.