

The Dalles Dam Fishway Status Report

12/21/19

Inspection Period: 12/15-12/21, 2019

THE DALLES DAM



US Army Corps
of Engineers
Portland District

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

The Dalles Dam	Inspections OOC	Criteria Limit	Total Number of Inspections: Comments: FU's off 12/1 for dewatering	Temperature: Secchi:
			7	43.4 °F 5.0 feet
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 =	1.37
Entrance weir N1	0	depth (≥ 8')	Average for week =	9.3
Entrance weir N2	0	Closed		
PUD Intake differential	0	≤ 0.5'		.4 to .5'
EAST FISHWAY - Dewatered for annual maintenance				
Exit differential	NA	≤ 0.5'		
Removable weirs 154-157	NA	Per forebay		
Weir 158-159 differential	NA	1.0' ± 0.1'		
Count station differential	NA	≤ 0.3'		
153 Weir crest depth	NA	1.1' ± 0.1'		
Junction pool weir JP6	NA	0.0		
East entrance differential	NA	1.0' - 2.0'		
Entrance weir E1	NA	No criteria		
Entrance weir E2	NA	depth (≥ 8')		
Entrance weir E3	NA	depth (≥ 8')		
Collection channel velocity	NA	1.5 - 4 fps		
Transportation channel velocity	NA	1.5 - 4 fps		
North channel velocity	NA	1.5 - 4 fps	12/14/19 3.62fps	
South channel velocity	NA	1.5 - 4 fps		
West entrance differential	NA	1.0' - 2.0'		
Entrance weir W1	NA	depth (≥ 8')		
Entrance weir W2	NA	depth (≥ 8')		
Entrance weir W3	NA	1.0' - 2.0'		
South entrance differential	NA	1.0' - 2.0'		
Entrance weir S1	NA	depth (≥ 8')		
Entrance weir S2	NA	depth (≥ 8')		
JUVENILE PASSAGE				
Sluiceway operation	NA	Units 1, 8, 18	Closed	
Turbine trashrack drawdown	NA	<1.5', biweekly	12/15/19 some shad morts.	
Spill volume/pattern	0	None	No spill	
Turbine Unit Priority	0	per FPP		
Gatewells	0	per FPP	12/13 fish check MU 2, 5, 8, 21 and 22 Juv. shad present with mortality.	

OTHER ISSUES:

Operations

North fish ladder in full operation
East fishway dewatered
Spillway closed

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
MU13 OOS 0600 9/23/2019 - 1700 7/22/2020 for Hydraulic Oil System Repairs
MU2 FOOS through 1/2/2019 for hydraulic repairs
MU12 OOS 0001 11/26/2019 - 1700 2/10/2020 T6 GSU Replacement & Annual
MU11 OOS 0400 11/26/2019 - 1700 2/20/2020 T6 GSU Replacement & O/H
F1 & F2 OOS 0001 12/1/2019 - 1700 2/10/2020 for Annual, O/H, FUBB
T1 & T3 OOS 0600 12/2/2019 - 1700 1/7/2020 for FUBB Upgrades

Maintenance

No calibration check
Collection channel dewatering pumps 5 and 6 removed for rehab. Awaiting new pump motor.
Fishway automation installation underway. Brackets and sensor installation complete at east entrance.
Evaluating east fishway diffuser valve status for maintenance plan.
Dewatering south entrance auxiliary water conduit to repair failed diffuser valves.
Preparing for repair of 3 expansion joints east fishladder.
Repair damaged weir cap on east entrance.
Spillway assessment (MRER); No funding for FY20. Importance of spillgate 9 fish priority included.
Weir 157 brake repair in progress. Removing weirs 154 and 155 for wheel replacement. Will also install plate on lift connection for lamprey.
West entrance weir W1 closed due to cable problems. Repair during winter outage. Weir W3 operated in its place providing two weirs at >8' depth

Predators

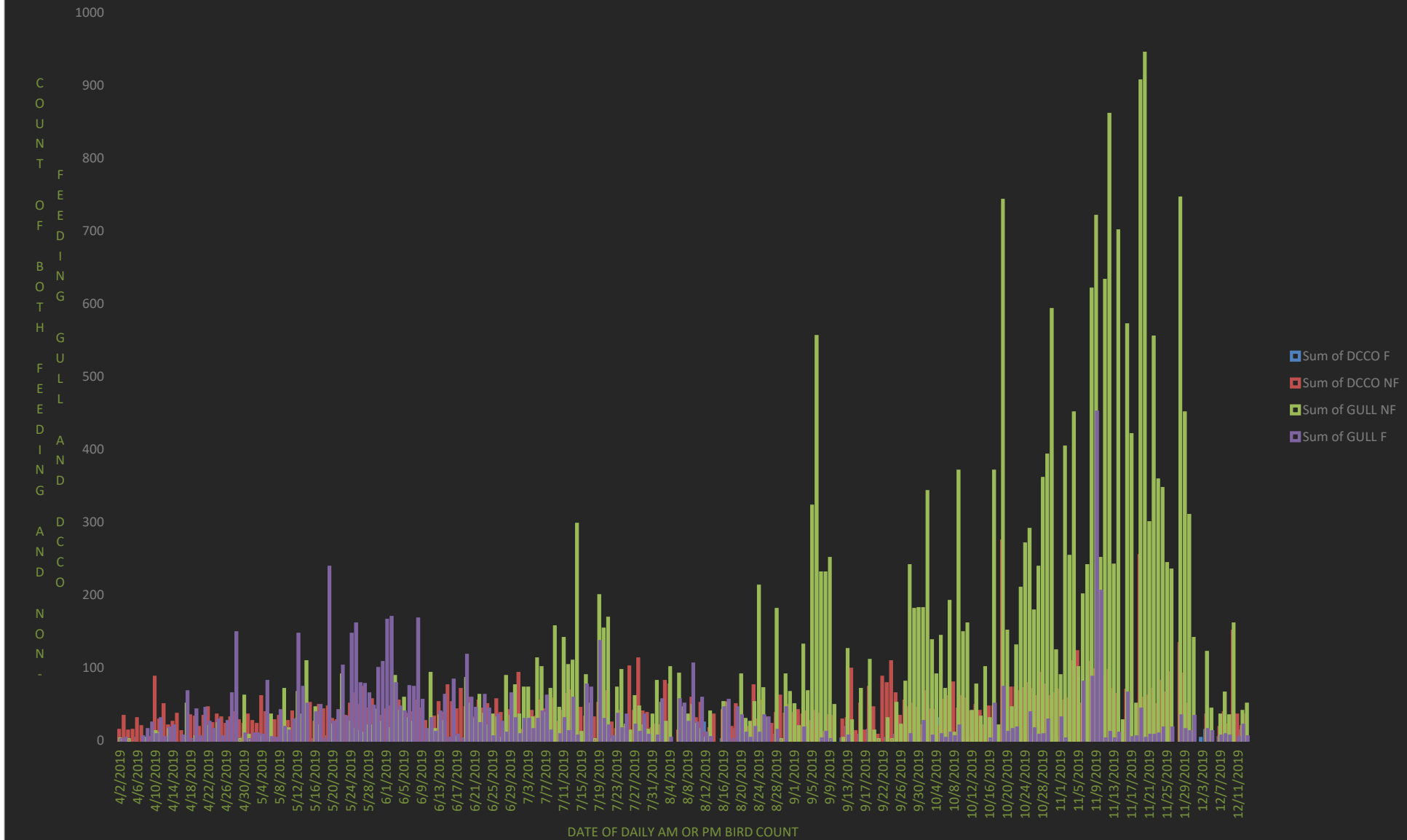
Green laser used to haze piscivorous birds for effectiveness testing. Report to follow.
USA hazing resumes 4/15/20
Cormorant and gull numbers fluctuating daily, with expected fall numbers.
No sea ion observations this week. Last sighting May9.

Research/Construction/Contractors

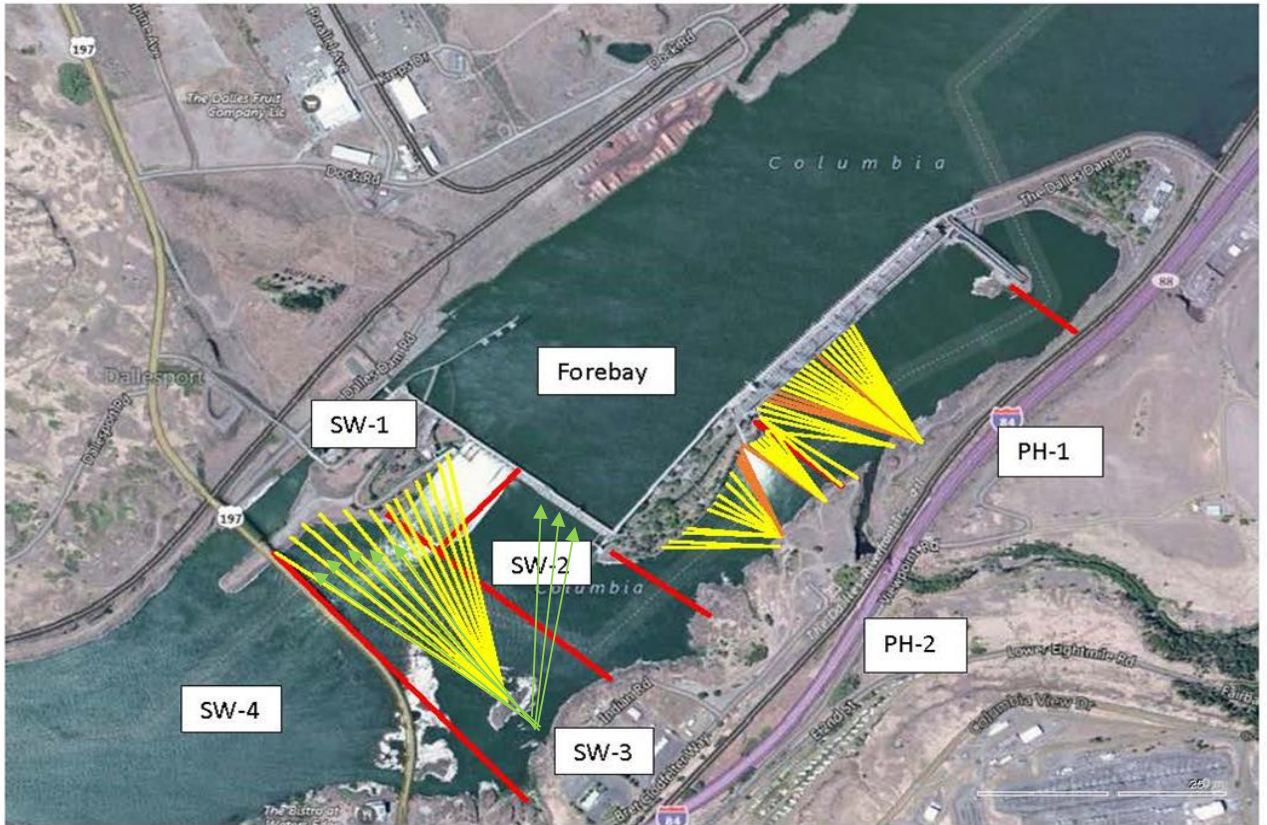
Four Peaks fish counting concluded October 31. Cleaning count stations
AWS backup - Follow on contract in progress. Return to service delayed due to parts delivery. Commissioning scheduled third week Feb.
PITAGS north and east fishladder data collection at count stations continues.
WDFW dam angling 2019 total 2228 pikeminnow, 98 smallmouth bass and 6 walleye caught. **Invasive Bass/Walleye were released.**
Fish unit breaker replace.- Planning third season work Dec1-end Jan. Commissioning first week of Feb.
Fish unit rehab - Phase 1A. Planning operation scenario during construction. No funding.

Approved by: Mike Colesar
Operation Project Manager The Dalles Dam

GULL and DCCO Daily Count April to Dec. 2019



Note increased numbers of birds feeding on salmon in May as opposed to non feeding on juvenile shad in the fall. Daily fluctuations may be due to AM versus PM daily count time.



Red lines = avian zones

Yellow lines = current wires

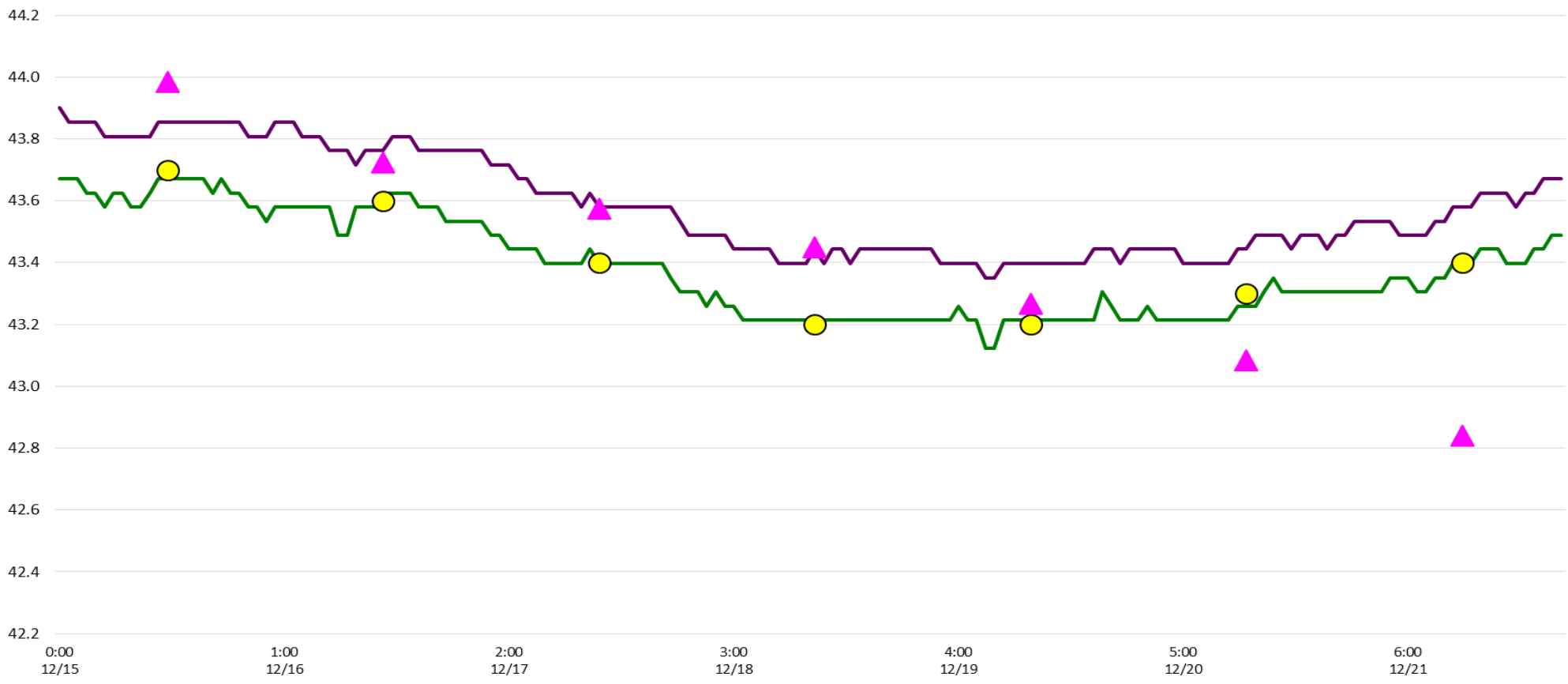
Orange lines = down or missing wires



Additional avian lines installed 9/2018

The Dalles Adult Fish Ladder(s)-River Temperatures

— North Count Station — North Entrance ● Current USGS Daily Average ▲ USGS Daily Average (2007-2017)



USGS:		
Secchi:		Temperatures
12/15	5.0	Sun 43.7
12/16	5.0	Mon 43.6
12/17	5.0	Tue 43.4
12/18	5.0	Wed 43.2
12/19	5.0	Thurs 43.2
12/20	5.0	Fri 43.3
12/21	5.0	Sat 43.4
	5.0	AVG 43.4

[Dec temps](#)

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

Date:	North Ladder Entrance		East Ladder											
			East Entrance					West Entrance			South Entrance			
	Differential	N1 Depth	Differential	E1 Depth	E2 Depth	E3 Depth	JP 6	Differential	W1	W2	W3	Differential	S1	S2
12/15	1.4	9.2	Ladder dewatered for winter maintenance											
12/16	1.4	9.1												
12/17	1.5	9.1												
12/18	1.4	9.1												
12/19	1.3	10.0												
12/20	1.3	9.2												
12/21	1.3	9.1												
AVG:	1.4	9.3												

Fishways are inspected once daily during winter maintenance period.