

The Dalles Dam Fishway Status Report

08/30/2020

Inspection Period: 8/23-8/29

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: 20	Temperature: 70.4 °F
			Comments: fishways functional	Weekly Average Secchi: 6.0

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	depth (≥ 8')	9.3
Entrance weir N2	0	Closed	
PUD Intake differential	8	≤ 0.5'	Aquatic weeds clogging PUD intake. Damage to north FB index makes data unreliable.

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	0	1.3' ± 0.1'	
Junction pool weir JP6	0	> 7.0'	Average for week = 10.4
East entrance differential	0	1.0' - 2.0'	Average for week = 1.5
Entrance weir E1	0	No criteria	Average for week = No criteria
Entrance weir E2	0	depth (≥ 8')	Average for week = 14.4
Entrance weir E3	0	depth (≥ 8')	Average for week = 11.7
Collection channel velocity	0	1.5 - 4 fps	2.89 fps, 8/19/2020 Range: 3.44 fps MU 19 to 2.46 fps MU-21
Transportation channel velocity	0	1.5 - 4 fps	2.28 fps, 8/19/2020
North channel velocity	0	1.5 - 4 fps	2.29 fps, 8/19/2020
South channel velocity	0	1.5 - 4 fps	3.32 fps, 8/19/2020
West entrance differential	0	1.0' - 2.0'	Average for week = 1.4
Entrance weir W1	0	depth (≥ 8')	Average for week = 1.9
Entrance weir W2	0	depth (≥ 8')	Average for week = 10.6
Entrance weir W3	0	No criteria	
South entrance differential	0	1.0' - 2.0'	Average for week = 1.4
Entrance weir S1	0	depth (≥ 8')	Average for week = 8.5
Entrance weir S2	0	depth (≥ 8')	Average for week = 8.5

JUVENILE PASSAGE

Sluiceway operation	0	Units 1, 7, 18	MU8 OOS
Turbine trashrack drawdown	0	<1.5', biwkly	8/22/2020 checked, all in criteria.
Spill volume/pattern	0	1 to 8	Spill 40% of total flow.
Turbine Unit Priority	5	per FPP	All available MUs running; OOC due to forced outages
Gatewells	0	Weekly	8/28/2020 fish check, some adult and juvenile shad present, 6-3 mortality. No salmon seen.

OTHER ISSUES:

Fishway Operations

North and east fish ladders in full operation.

Spillway open 30% for juvenile passage with Fish Passage Plan pattern

Unit Outages

Line 1, MU1,2, FU1&2 limited to 188MVA for T1 replacement; 1/28/2021

T3 MU5, MU6 FU1 & FU2 limited to 188MVA through 1/28/2020 for FUBB bus temperature testing. F1 F2 maintaining normal discharge.

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

MU8 out 1/21/2020 - 8/13/2020 for Overhaul

T7 out 6/22/2020 - 9/24/2020 T7 GSU Replacement & Gnd. Switch Repairs

MU22 forced out through 1700 10/15/2020 due to excessive vibration.

Line 3 (MU7) out 7/20-7/21.

Maintenance

PUD intake rake out of service due to power track damage. Exploring repair options. Expecting budget challenge. Raking with mobile crane as needed.

Calibration check on 8/28, all in criteria. Damage to north FB staff gage giving potential accuracy problems.

Five of 6 east fishway collection channel dewatering pumps removed for repair/rehab. On hold due to budget constraints.

East fishway automation replacement presently stalled. PLC box assembly completed. Installation of east entrance planned completion in Sept.

Spillway assessment (MRER); No FY20 funding. Spillgate 9 trunnion pin included.

Predators

USDA hazing concluded 7/31. Refer to avian graph tab for bird numbers.

Green laser use for piscivorous bird hazing testing on hold. Potential safety concerns being addressed.

Cormorants foraging forebay near east ladder exit and entrance. Several herons foraging east fishladder.

Research/Construction/Contractors

PSMFC concluded juvenile sampling at PUD 7/31

Four Peaks fish counting ongoing through 10/31.

CRITFC lamprey trapping numbers slow w/ 11 captured for the week w/ 513 total YTD

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

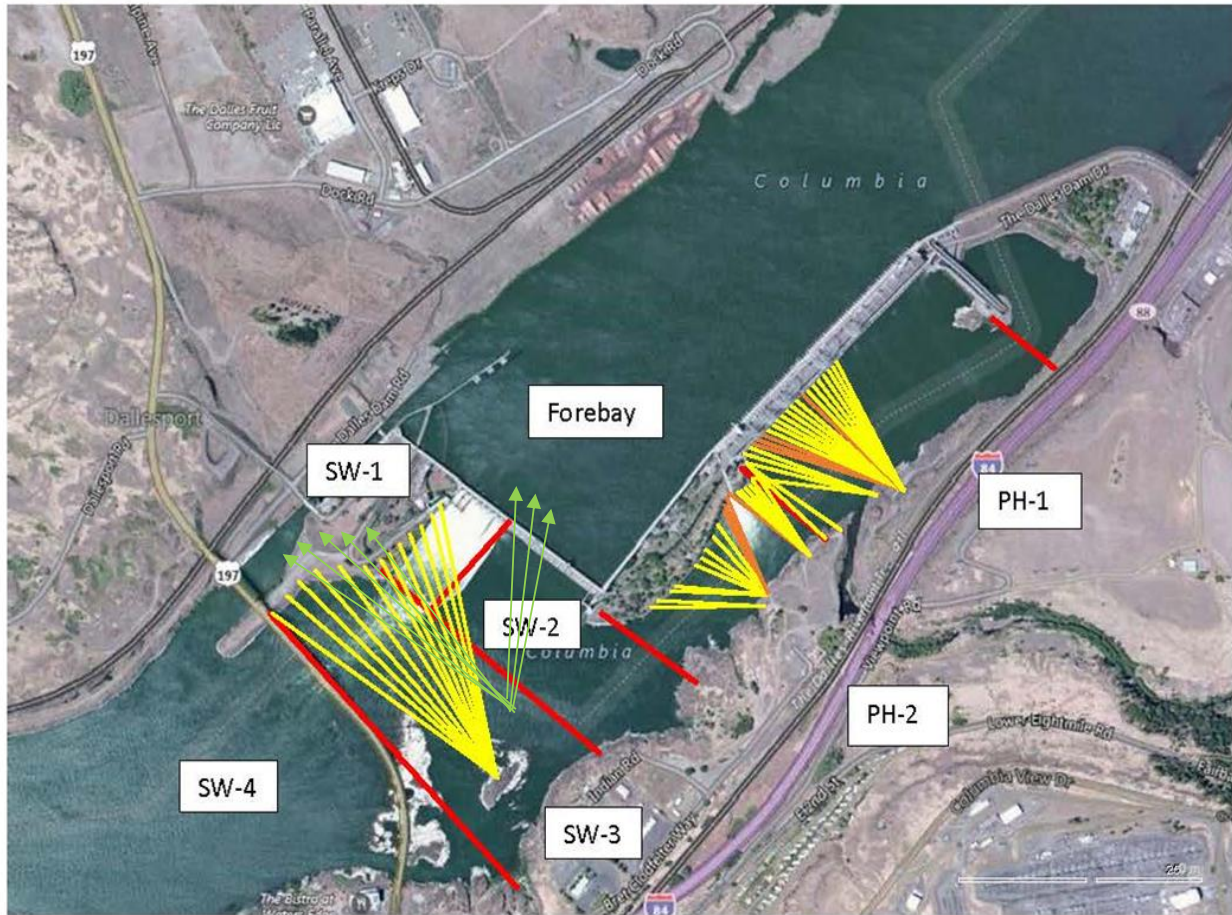
Pikeminnow dam angling 7 NPM this week-969 NPM YTD. **All invasive bass/walleye by-catch release continues per states gamefish requirements.**

Fish unit breaker replacement installed and in operation. Calculation issue needed for completion.

Fish unit rehab - Phase 1A. Planning operation scenario with AWS backup water supply during construction. Effort underway to finish report this year.

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

Avian Lines and laser deterrent zones

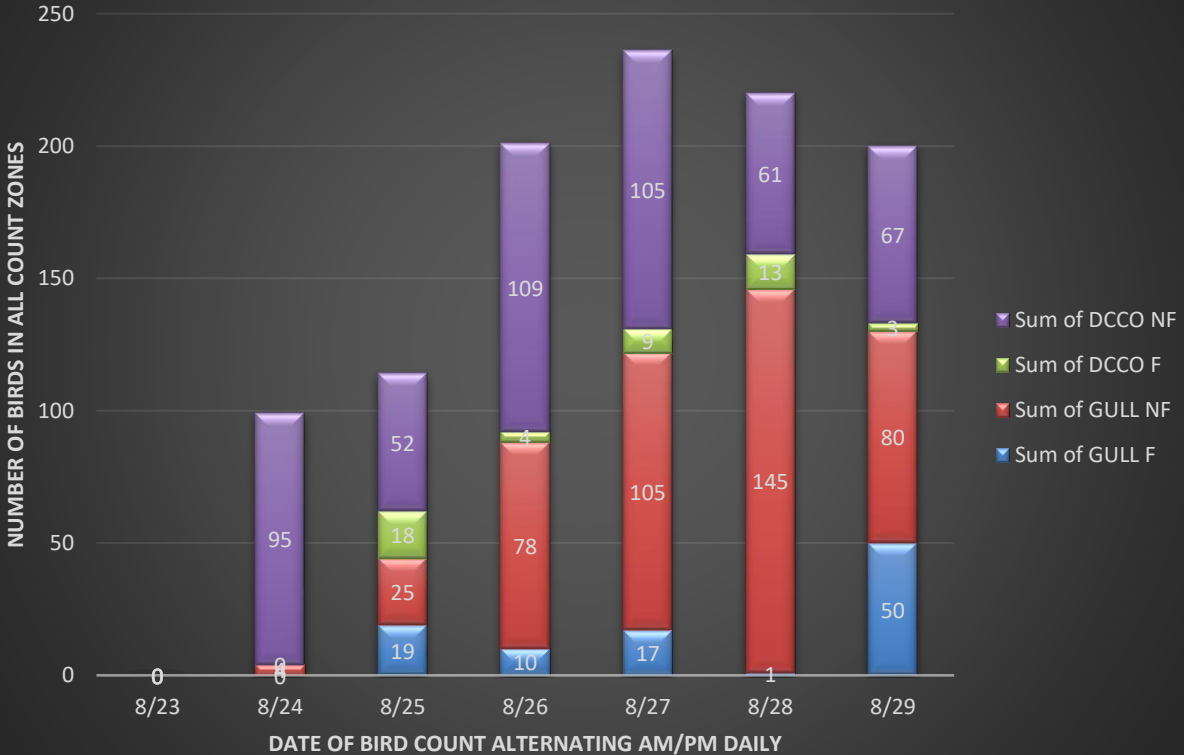


Red lines = avian zones

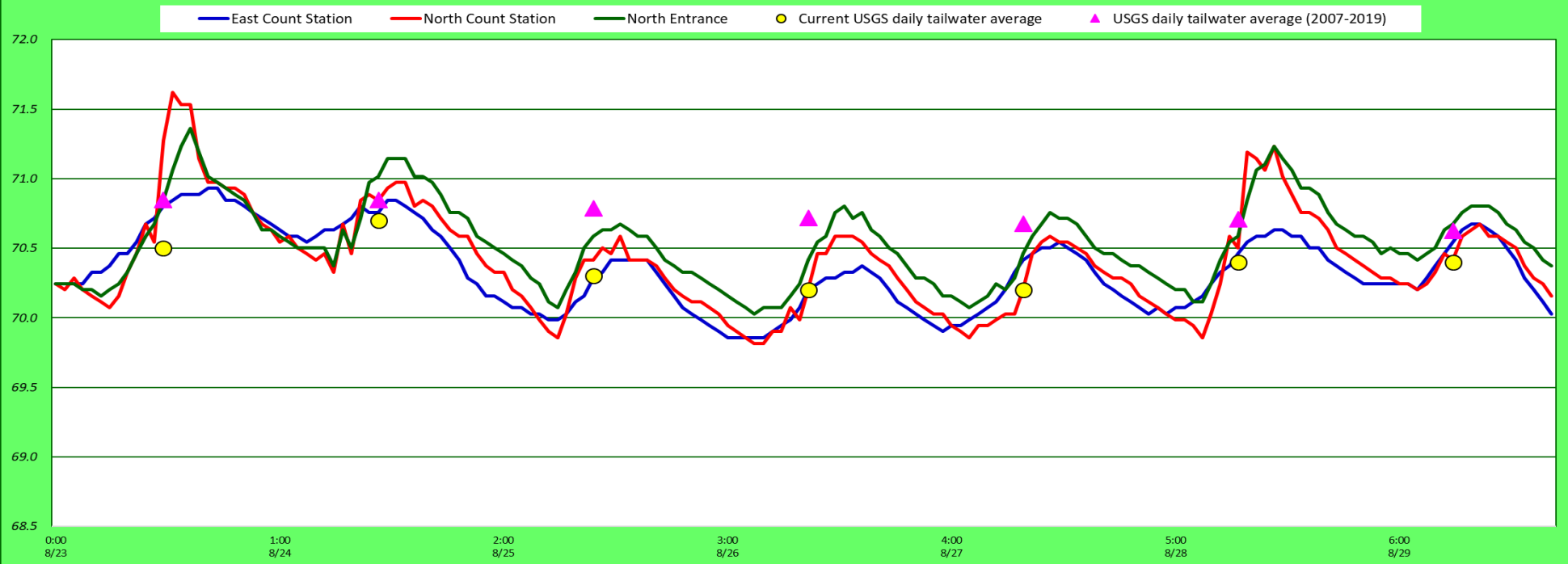
Yellow lines = current wires

Orange lines = down or missing wires

Bird counts TDA 8/23 to 8/29/2020



Adult Fish Ladders-River Temperatures



Secchi:		°F	USGS August
8/23	6.0	Sun	70.5
8/24	6.0	Mon	70.7
8/25	6.0	Tue	70.3
8/26	6.0	Wed	70.2
8/27	6.0	Thurs	70.2
8/28	6.0	Fri	70.4
8/29	6.0	Sat	70.4
	6.0	AVG	70.4

**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	Differential	East Entrance			JP 6	West Entrance			Differential	S1	S2		
				E1 Depth	E2 Depth	E3 Depth		W1	W2	W3					
8/23			1.4		12.0	12.0	10.0	1.4	1.4	10.4		1.5	8.4	8.3	
	1.3	9.5	1.5		12.0	11.9	10.2	1.4	1.4	10.6		1.4	8.5	8.6	
	1.4	9.3	1.4		64.3	12.1	10.4	1.3	1.3	10.5		1.4	8.4	8.4	
8/24			1.5		12.0	12.0	11.2	1.5	1.5	10.4		1.5	8.5	8.5	
	1.3	9.4	1.5		12.0	12.0	11.2	1.5	1.5	10.5		1.4	8.6	8.6	
	1.3	9.3	1.6		11.9	11.9	11.1	1.5	1.5	10.5		1.5	8.5	8.5	
8/25			1.4		12.0	12.0	10.1	1.4	1.4	10.5		1.5	8.5	8.5	
	1.0	9.3	1.4		12.0	12.0	10.1	1.4	1.4	10.5		1.5	8.5	8.5	
8/26			1.1		12.0	12.0	9.1	1.2	1.2	10.6		1.3	8.5	8.5	
	1.4	9.1	1.5		11.5	11.5	9.3	1.5	1.5	10.5		1.4	8.4	8.4	
	1.3	9.3	1.7		11.6	11.6	10.5	1.4	1.4	11.4		1.4	8.6	8.6	
8/27			1.3		11.6	11.6	9.7	1.0	1.0	11.5		1.4	8.5	8.5	
	1.2	9.2	1.4		11.5	11.5	9.7	1.3	1.3	10.5		1.3	8.5	8.5	
	1.4	9.2	1.6		11.5	11.5	11.1	1.6	1.6	10.6		1.5	8.5	8.5	
8/28			1.4		11.5	11.5	10.4	1.4	1.4	10.4		1.5	8.5	8.5	
	1.4	9.5	1.5		11.4	11.6	10.3	1.4	1.4	10.4		1.4	8.5	8.5	
	1.3	9.4	1.5		11.6	11.6	11.0	1.5	1.5	10.5		1.5	8.6	8.5	
8/29			1.6		11.6	11.4	10.7	1.5	1.5	10.5		1.5	8.4	8.5	
	1.4	9.5	1.6		11.5	11.5	11.0	1.5	1.5	10.6		1.5	8.5	8.6	
	1.4	9.4	1.7		11.5	11.5	11.2	1.6	1.6	10.6		1.5	8.5	8.6	
AVG:	1.3	9.3	1.5	#DIV/0!	14.4	11.7	10.4	1.4	1.9	10.6	#DIV/0!	1.4	8.5	8.5	

Fishways are inspected once daily plus one SCADA inspection.



Heron fishing east ladder exit