

# The Dalles Dam Fishway Status Report

08/9/2020

Inspection Period: 8/1-8/8

## 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: 70.7 °F
			Comments: fishways functional		Weekly Average Secchi: 5.3

### 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'	1.2
Entrance weir N1	0	depth (≥ 8')	9.1
Entrance weir N2	0	Closed	
PUD Intake differential	0	≤ 0.5'	

### EAST FISHWAY

Exit differential	0	≤ 0.5'	
Removable weirs 154-157	1	Per forebay	7/28 am, 156 slow to respond
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 = 10.6
East entrance differential	0	1.0' - 2.0'	Average for week = 1.4
Entrance weir E1	0	No criteria	Average for week = 6.5
Entrance weir E2	0	depth (≥ 8')	Average for week = 12.3
Entrance weir E3	0	depth (≥ 8')	Average for week = 12.3
Collection channel velocity	0	1.5 - 4 fps	2.74 fps, 8/7/2020 Range: 3.44 fps MU-7 to 2.15 fps MU-18
Transportation channel velocity	0	1.5 - 4 fps	2.12 fps, 8/9/2020
North channel velocity	0	1.5 - 4 fps	2.6 fps, 8/8/2020
South channel velocity	0	1.5 - 4 fps	2.22 fps, 8/8/2020
West entrance differential	0	1.0' - 2.0'	Average for week = 1.5
Entrance weir W1	0	depth (≥ 8')	Average for week = 10.7
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 = 1.5
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	7/30/2020 checked, all in criteria.
Spill volume/pattern	0	1 to 8	Spill 40% of total flow.
Turbine Unit Priority	1	per FPP	All available MUs running; OOC due to forced outages
Gatewells	0	Weekly	8/8/2020 fish check, adult shad in some wells, some mortality. No salmon present.

## OTHER ISSUES:

### Fishway Operations

North and east fish ladders in full operation.

Spillway open 40% for juvenile passage with Fish Passage Plan pattern

Slucieway open with 6 gates.

Live shad and sub/yearling salmon observed in many gatewells

### Unit Outages

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

T3 MU5, MU6 FU1 & FU2 limited for fish unit breaker bus temperature testing

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

MU8 out through 8/13/2020 for Overhaul

T7 out through 9/24/2020 GSU Replacement & Gnd. Switch Repairs

### Maintenance

PUD rake out of service due to power track damage. Planning repair. PUD intake can be raked with mobile crane if needed.

Calibration check; 8/8/2020 All entrances in calibration and within criteria.

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

East fishway automation replacement underway. PLC box assembly completed. Installation underway.

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

MU 21 scrollcase and draft tube dewatered 8/3. Twenty six sturgeon and 6 catfish removed from draft tube and released to river.

Fishway grating midseason ROV inspection completed 8/3. All visible grating found intact.

### Predators

USDA hazing concluded 7/31.

Green laser use for piscivorous bird hazing testing on hold. Addressing potential safety concerns.

### Research/Construction/Contractors

PSMFC concluded juvenile sampling at PUD 7/31. Planning new sample tank construction this winter.

Four Peaks fish counting ongoing.

CRITFC continues lamprey trapping at east count station, lamprey numbers slowed w/ 13 captured for the week w/ 461 total YTD

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

Pikeminnow dam angling 24 NPM this week-921 NPM YTD. **All invasive bass/walleye by-catch release continues per states gamefish requirements.**

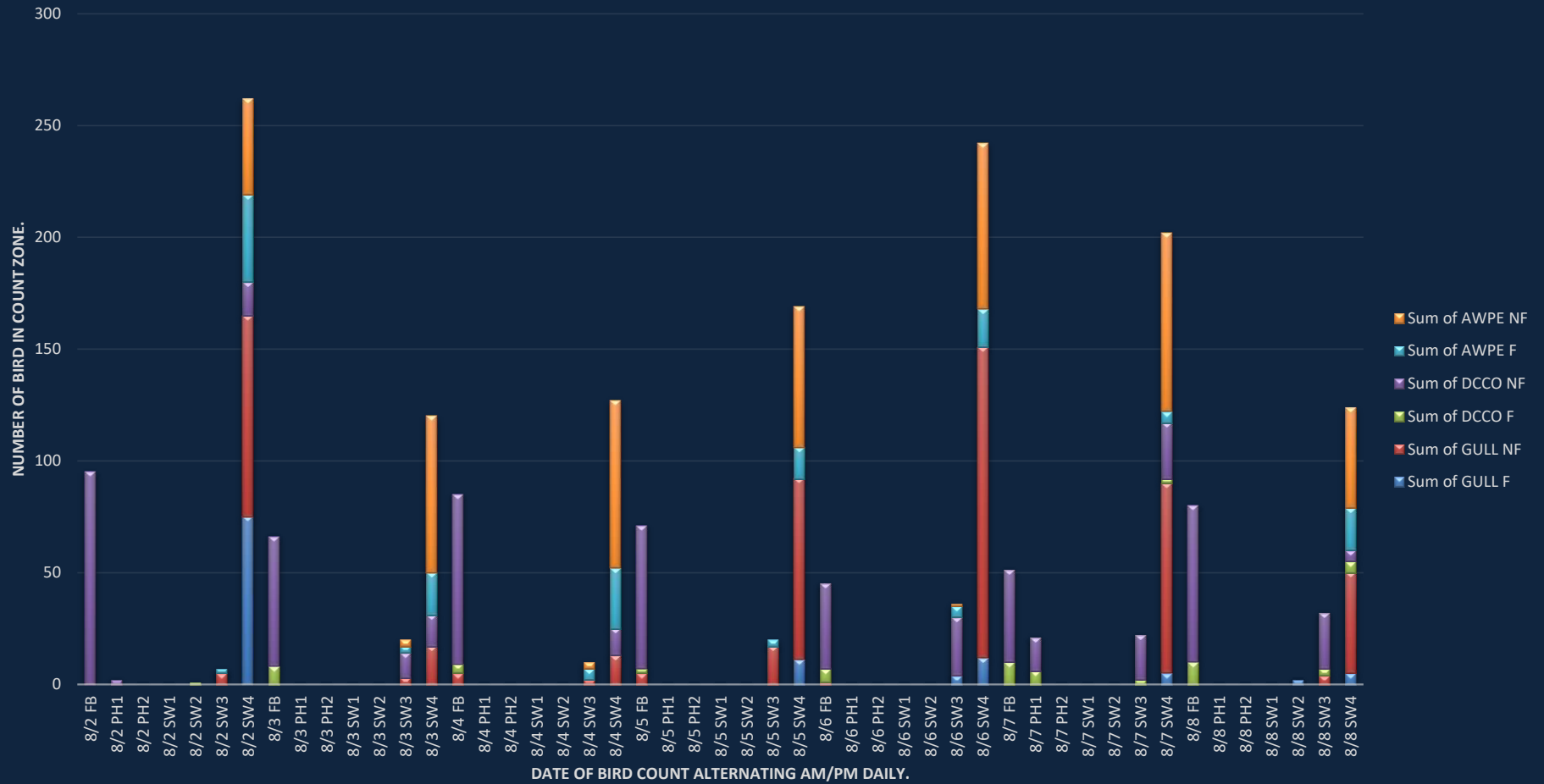
Fish unit breaker replacement installed and in operation. Calculation issue needed for completion.

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

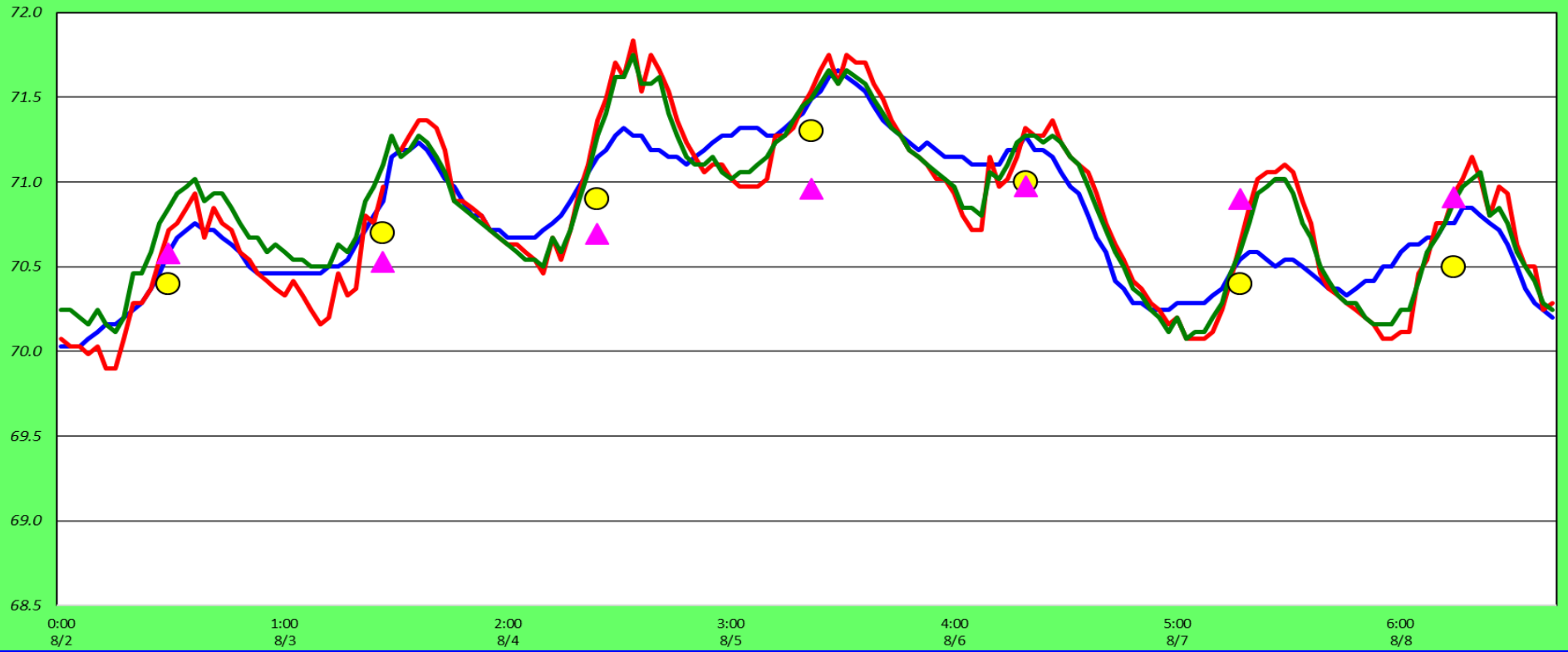


## Bird counts TDA 8/2 to 8/8/2020



# Adult Fish Ladders-River Temperatures

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



	Secchi:		°F	USGS August
8/2	5.0	Sun	70.4	
8/3	5.0	Mon	70.7	
8/4	5.0	Tue	70.9	
8/5	5.0	Wed	71.3	
8/6	5.0	Thurs	71.0	
8/7	6.0	Fri	70.4	
8/8	6.0	Sat	70.5	
	5.3	AVG	70.7	

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

SCADA INSPECTION  
out of criteria

Date:	North Ladder		East Ladder											
	Differential	N1 Depth	East Entrance					West Entrance				South Entrance		
			Differential	E1 Depth	E2 Depth	E3 Depth	JP 6	Differential	W1	W2	W3	Differential	S1	S2
8/2			1.7	5.4	12.4	12.4	11.3	1.6	10.4	10.4	-1.8	1.5	8.7	8.5
	1.2	9.9	1.5	6.6	12.6	12.6	11.5	1.6	10.8	10.8	-1.8	1.4	8.6	8.6
	1.3	9.8	1.6	6.4	12.3	12.4	11.5	1.5	10.9	10.9	-1.7	1.5	8.5	8.7
8/3			1.1	6.5	12.5	12.5	9.6	1.3	10.7	10.7	-3.3	1.4	8.5	8.5
	1.2	9.8	1.1	6.4	11.5	11.5	9.9	1.3	11.7	11.7	-3.9	1.8	8.7	8.7
	1.2	9.8	1.3	7.8	11.7	11.7	9.9	1.3	10.9	10.9	-3.5	1.3	8.6	8.6
8/4			1.5	7.9	11.5	11.5	9.8	1.4	10.5	10.5	-3.6	1.4	8.6	8.6
	1.2	9.8	1.3	8.0	11.6	11.6	10.1	1.3	10.6	10.6	-3.5	1.5	8.5	8.5
	1.3	9.9	1.7	8.2	11.6	11.6	12.3	1.8	10.6	10.6	-1.9	1.5	8.6	8.6
8/5			1.3	8.1	12.5	12.5	10.6	1.1	11.4	11.4	-2.7	1.4	8.5	8.5
	1.2	9.8	1.4	5.5	12.6	12.6	10.7	1.4	10.9	10.9	-2.7	1.5	8.5	8.5
	1.3	9.9	1.7	7.2	12.5	12.5	11.4	1.7	10.3	10.3	-2.1	1.7	8.4	8.4
8/6			1.2	7.0	12.5	12.5	10.0	1.4	10.3	10.3	-3.3	1.4	8.5	8.5
	1.2	9.8	1.4	5.2	12.5	12.5	9.8	1.4	10.4	10.4	-3.4	1.3	8.4	8.3
	0.0	0.0	1.5	5.2	12.5	12.5	10.6	1.6	10.3	10.3	-2.8	1.6	8.2	8.2
8/7			1.4	5.3	12.6	12.5	10.0	1.4	10.4	10.4	-3.2	1.5	8.3	8.3
	1.2	9.8	1.4	5.2	12.6	12.5	10.1	1.4	10.4	10.4	-3.2	1.5	8.3	8.3
	1.4	9.7	1.6	6.9	12.4	12.5	11.6	1.6	10.5	10.5	-2.1	1.6	8.2	8.2
8/8			1.2	7.1	12.6	12.5	9.7	1.3	10.8	10.7	-3.5	1.4	8.3	8.4
	1.3	9.6	1.6	5.0	12.5	12.6	10.5	1.5	10.5	10.5	-2.8	1.4	8.4	8.5
	1.3	9.7	1.6	5.0	12.5	12.6	11.1	1.6	10.4	10.4	-2.5	1.6	8.3	8.2
<b>AVG:</b>	<b>1.2</b>	<b>9.1</b>	<b>1.4</b>	<b>6.5</b>	<b>12.3</b>	<b>12.3</b>	<b>10.6</b>	<b>1.5</b>	<b>10.7</b>	<b>10.6</b>	<b>-2.8</b>	<b>1.5</b>	<b>8.5</b>	<b>8.5</b>

***Fishways are inspected once daily plus one SCADA inspection.***

Great blue heron foraging in the upper pools of the East Fishway exit.  
Most days 4 to 6 herons present. 8.7.2020

