

# The Dalles Dam Fishway Status Report

07/5/2020

Inspection Period: 6/28-7/4

## 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: 21	Temperature: 63.4 °F
			Comments: Increasing spill volume and GULL #.	Weekly Average Secchi: 4.6
<b>NORTH FISHWAY</b>				
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')	10.0	
Entrance weir N2	0	Closed		
PUD Intake differential	0	≤ 0.5'		
<b>EAST FISHWAY</b>				
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	2	1.3' ± 0.1'	1x below lower limit, 1x above	
Junction pool weir JP6	0	> 7.0'	Average for week = 15.9	
East entrance differential	0	1.0' - 2.0'	Average for week = 1.6	
Entrance weir E1	0	No criteria	Average for week = 8.5	
Entrance weir E2	0	depth (≥ 8')	Average for week = 12.5	
Entrance weir E3	0	depth (≥ 8')	Average for week = 12.5	
Collection channel velocity	0	1.5 - 4 fps	2.93 fps, 6/27/2020	Range: 3.44 fps MU-4 to 2.15 fps MU-9
Transportation channel velocity	0	1.5 - 4 fps	1.99 fps, 6/27/2020	
North channel velocity	0	1.5 - 4 fps	1.73 fps, 6/27/2020	
South channel velocity	0	1.5 - 4 fps	2.57 fps, 6/27/2020	
West entrance differential	0	1.0' - 2.0'	Average for week = 1.5	
Entrance weir W1	0	depth (≥ 8')	Average for week = 11.9	
Entrance weir W2	0	depth (≥ 8')	Average for week = 11.9	
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 = 8.7	
Entrance weir S2	0	depth (≥ 8')	Average for week = 8.7	
<b>JUVENILE PASSAGE</b>				
Sluiceway operation	0	Units 1, 4, 7, 1	MU8 OOS, MU7 running per FPP. Sluiceway 7 closed this week.	
Turbine trashrack drawdown	0	<1.5', biwkly	6/20/2020 checked, all in criteria.	
Spill volume/pattern	0	1 to 8	Spill 40% of total flow.	
Turbine Unit Priority	21	per FPP	All available MUs running; OOC due to forced outages	
Gatewells	0	Weekly	7/1/2020 One salmonid mortality, MU-15-3. Fish present in 1,2,6,15,16 and 18, 22, live shad, sub/yearling salm	

## OTHER ISSUES:

### Fishway Operations

North and east fish ladders in full operation. AWS backup system opened to supplement east fishway flow during F1 outage. Nightly AWS shutdown required.

Spillway open 40% for juvenile passage with 07/5/2020

Sluiceway opened with open sluiceways 1-1,1-2,1-3,4-1,4-2,18-2.

One salmonid mortality in MU-15-3 (MFR submitted). Live shad and sub/yearling salmon observed in units 1,2,6,15,16 and 18, 22.

### Unit Outages

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

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

MU8 out of service through 7/10/2020 for Overhaul

MU13 and 14 out for T7 replacement through 9/24/20

MU15 and 16 out for ground switch through 7/6/20

F1 forced out of service through 6/29/20. AWS in operation for replacement flow. F1 returned to service 6/29.

### Maintenance

Calibration check; 6/29 all entrances and gates in calibration and criteria.

Five of 6 east fishway collection channel dewatering pumps removed for repair/rehab. Work in progress.

East fishway automation replacement underway. PLC box assembly completed. Starting installation at entrances.

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

Fish unit F1 replaced shaft seal. Completed 6/29.

### Predators

USDA hazing ongoing. Gulls and Pelicans foraging below spillway. Gulls inside lines are hazed by USDA. Numerous pelicans parasitic feeding in PH1.

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

### Research/Construction/Contractors

Four Peaks fish counting ongoing.

AWS backup - In operation due to F1 forced outage. Periodic nightly shutdown for trashrack differential needed. Investigating rake need. Alarm system planning underway.

PITAGS north and east fishladder data collection at count stations continues. Some interference problems on east antennas. PITAGS troubleshooting.

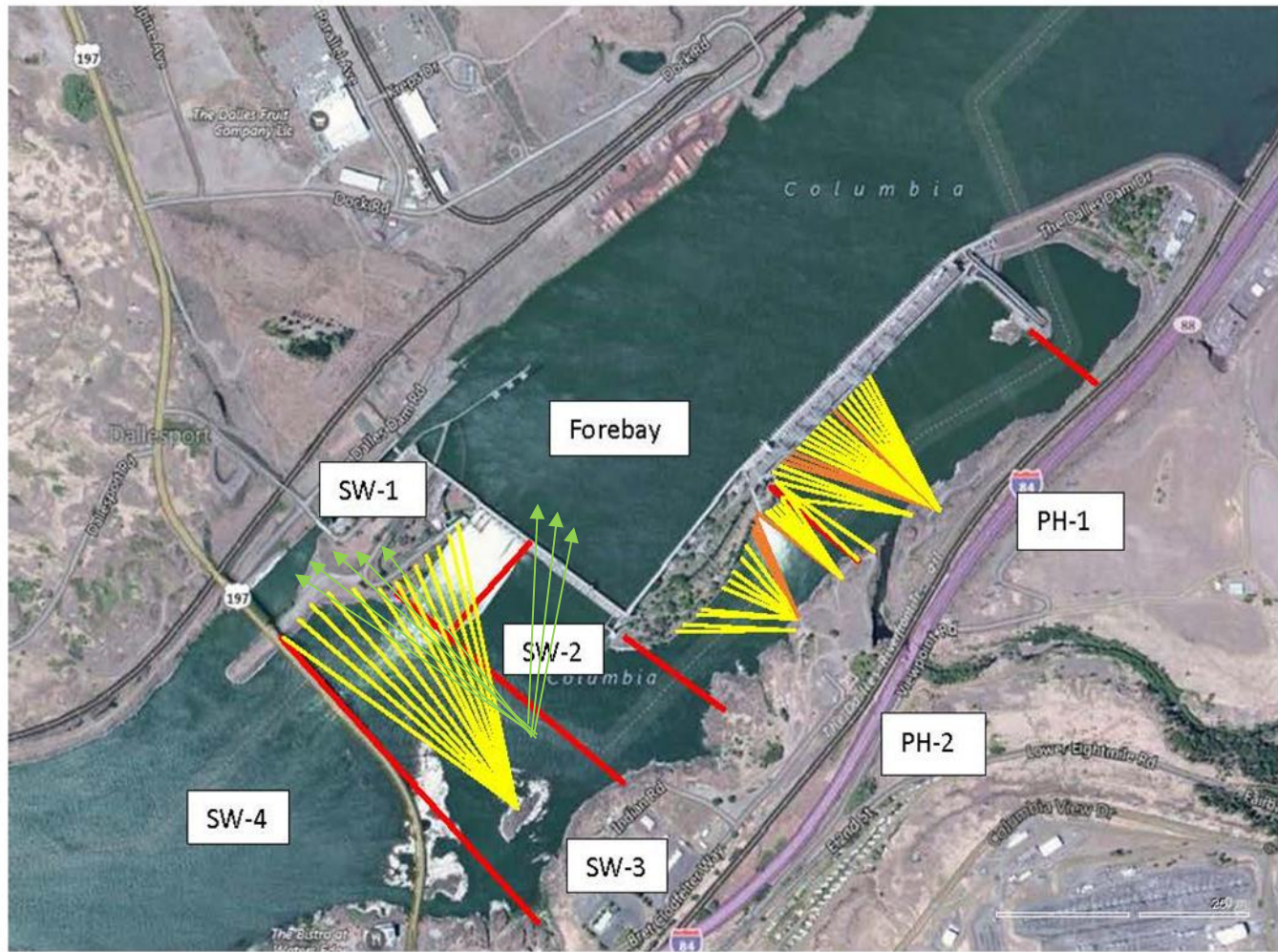
Pikeminnow dam angling 122 NPM this week/190 NPM year to date. **All invasive bass/walleye by-catch release continues per states gamefish requirements.**

Fish unit breaker replacement completed. One more calculation item 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

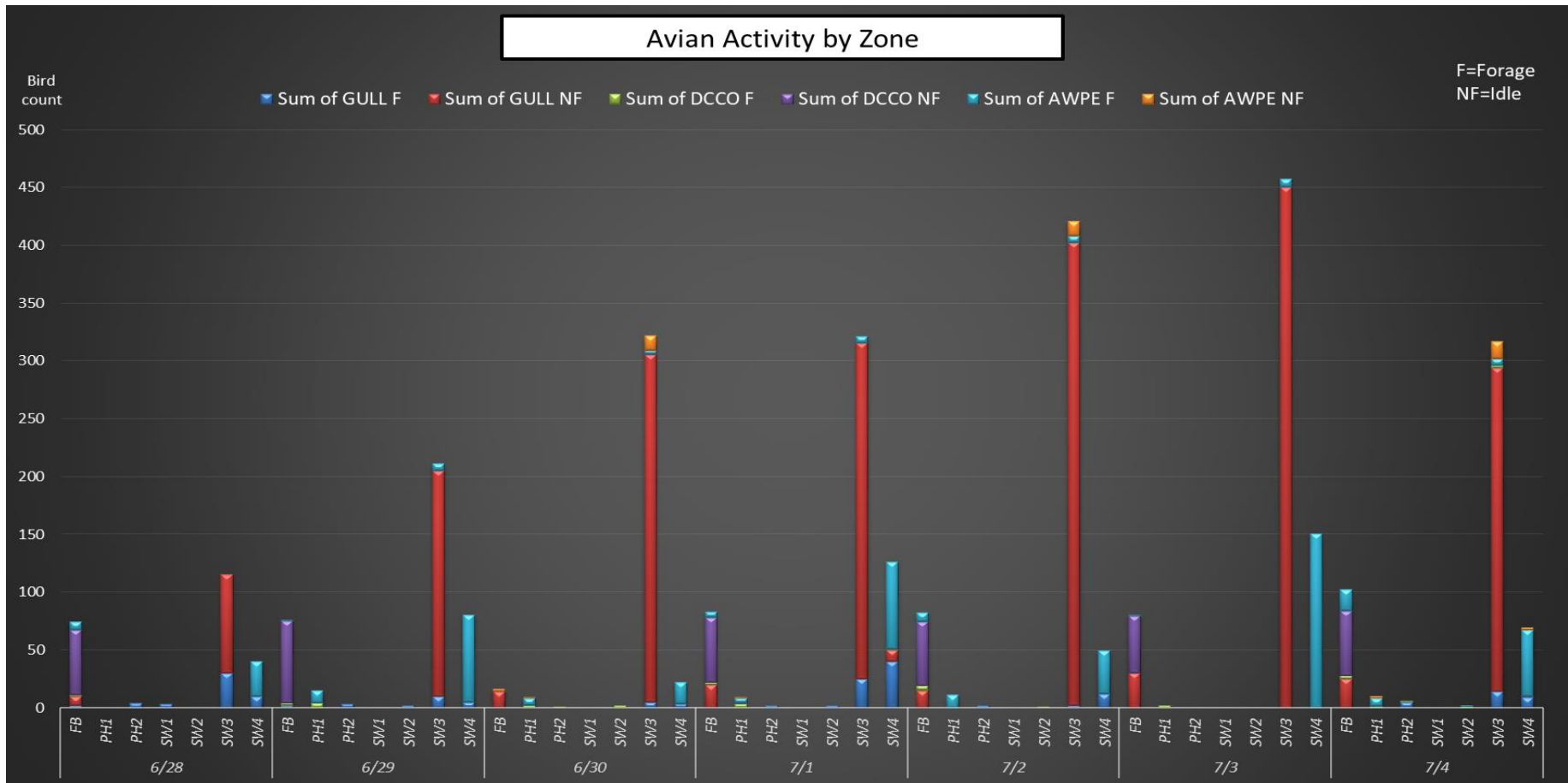


Red lines = avian zones

Yellow lines = current wires

Orange lines = down or missing wires





Note: the numbers of non-foraging pelicans is being underreported due to their habit of resting west of the western most count zone SW4. Typically 100 to 200 NF AWPE not included in count.  
 Note: the count of foraging pelicans in PH1 has been significantly reduced by USDA shore hazing DCCO away from this area.

### 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 June	USGS July
6/28	4.0	Sun	63.6		
6/29	4.0	Mon	63.8		
6/30	4.0	Tue	63.7		
7/1	5.0	Wed	63.3		
7/2	5.0	Thurs	63.1		
7/3	5.0	Fri	63.1		
7/4	5.0	Sat	62.9		
	4.6	AVG	63.4		

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

SCADA INSPECTION  
out of criteria

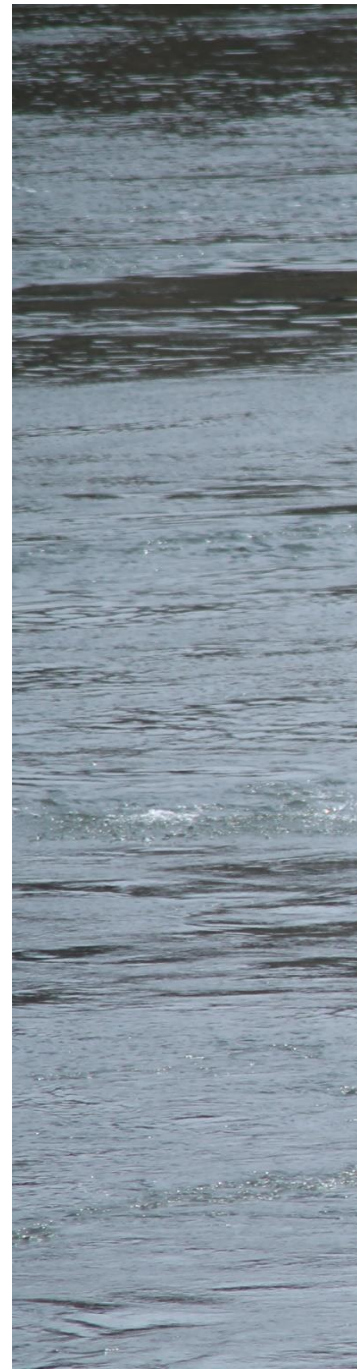
Date:	North Ladder		East Ladder											
	Differential	N1 Depth	East Entrance					West Entrance				South Entrance		
			Differential	E1 Depth	E2 Depth	E3 Depth	JP 6	Differential	W1	W2	W3	Differential	S1	S2
6/28			1.6	2.5	12.4	12.5	14.8	1.4	11.7	11.7	2.1	1.2	8.2	8.1
	1.3	10.1	1.5	2.9	12.5	12.6	16.5	1.7	11.6	11.6	1.8	1.4	8.1	8.1
	1.3	10.0	1.5	3.0	12.6	12.5	16.6	1.6	11.6	11.6	2.1	1.4	8.2	8.2
6/29			1.4	3.1	12.6	12.6	15.9	1.4	11.6	11.6	2.2	1.4	8.1	8.1
	1.3	10.0	1.5	3.1	12.5	12.5	16.1	1.5	11.5	11.5	2.1	1.3	8.2	8.2
	1.3	9.9	1.6	10.0	12.4	12.4	15.9	1.5	12.1	12.1	8.1	1.4	8.9	9.1
6/30			1.5	9.9	12.5	12.5	16.8	1.5	12.2	12.2	8.1	1.5	9.0	9.0
	1.3	10.0	1.6	10.0	12.5	12.5	16.8	1.6	12.1	12.1	8.1	1.5	9.1	9.1
	1.4	10.0	1.6	9.9	12.5	12.5	16.2	1.5	12.1	12.1	8.1	1.4	9.1	9.1
7/1			1.5	10.0	12.5	12.6	16.1	1.6	12.0	12.0	7.9	1.5	9.0	9.0
	1.3	10.0	1.6	10.1	12.5	12.4	15.9	1.5	12.1	12.1	8.0	1.5	8.9	8.9
	1.3	10.0	1.5	10.5	12.5	12.5	16.3	1.5	12.0	12.0	7.9	1.5	9.0	9.0
7/2			1.6	10.5	12.5	12.5	14.7	1.3	12.2	12.2	8.1	1.3	9.0	9.0
	1.3	9.9	1.5	10.4	12.4	12.4	16.3	1.5	12.1	12.1	8.1	1.5	9.0	9.0
	1.3	9.9	1.5	10.5	12.6	12.6	16.8	1.6	12.1	12.1	8.0	1.5	9.0	9.0
7/3			1.6	10.4	12.4	12.4	16.4	1.5	12.1	12.1	8.0	1.5	9.0	9.0
	1.3	10.0	1.4	10.6	12.6	12.6	16.5	1.5	12.2	12.2	8.1	1.4	9.1	9.1
	1.2	9.9	1.6	10.4	12.5	12.5	16.1	1.5	12.1	12.1	8.0	1.5	8.9	8.9
7/4			1.5	10.6	12.5	12.4	14.7	1.3	10.2	10.2	8.1	1.4	8.9	8.8
	1.3	10.0	1.9	10.3	12.2	12.2	14.6	1.5	12.5	12.5	4.1	1.6	8.3	8.3
	1.3	10.0	1.6	10.6	12.4	12.4	14.8	1.5	12.4	12.4	3.9	1.5	8.3	8.3
<b>AVG:</b>	<b>1.3</b>	<b>10.0</b>	<b>1.6</b>	<b>8.5</b>	<b>12.5</b>	<b>12.5</b>	<b>15.9</b>	<b>1.5</b>	<b>11.9</b>	<b>11.9</b>	<b>6.2</b>	<b>1.4</b>	<b>8.7</b>	<b>8.7</b>

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



7/1/2020 in PH1 downstream of powerhouse. Non foraging Pelicans attack Cormorants surfacing with fish. Pre





ey items unidentified.



