

# The Dalles Dam Fishway Status Report

08/25/19

Inspection Period: August 18 - August 24, 2019

## 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: Comments:	21	Temperature: 71.3 °F	Secchi: 4.9 feet
<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'	Average for week =	1.29		
Entrance weir N1	0	depth (≥ 8')	Average for week =	9.7		
Entrance weir N2	0	Closed				
PUD Intake differential	1	≤ 0.5'	8/18			
<b>EAST FISHWAY</b>						
Exit differential	0	≤ 0.5'				
Removable weirs 154-157	0	Per forebay				
Weir 158-159 differential	0	1.0' ± 0.1'				
Count station differential	0	≤ 0.3'				
153 Weir crest depth	0	1.1' ± 0.1'				
Junction pool weir JP6	0	0.0	Average for week =	11.3		
East entrance differential	0	1.0' - 2.0'	Average for week =	1.51		
Entrance weir E1	0	No criteria				
Entrance weir E2	0	depth (≥ 8')	Average for week =	13.16		
Entrance weir E3	0	depth (≥ 8')	Average for week =	13.15		
Collection channel velocity	0	1.5 - 4 fps	2.50 fps Average	Range: 2.97 fps FU2 - 1.95 fps MU9		
Transportation channel velocity	0	1.5 - 4 fps	2.28 fps	8/23		
North channel velocity	0	1.5 - 4 fps	3.0 fps	8/24		
South channel velocity	1	1.5 - 4 fps	4.19 fps	8/23		
West entrance differential	0	1.0' - 2.0'	Average for week =	1.5		
Entrance weir W1	0	depth (≥ 8')	Average for week =	8.6		
Entrance weir W2	0	depth (≥ 8')	Average for week =	8.6		
Entrance weir W3	closed	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		
<b>JUVENILE PASSAGE</b>						
Sluiceway operation	0	Units 1, 8, 18	unit 9 instead of 8 starting 8/22			
Turbine trashrack drawdown	0	<1.5', biwkly	Inspection 8/24/19. Live shad adults, few juv. salmonids in gatewells			
Spill volume/pattern	0	None	Gates 1 and 2 are closed to spill at times according to FPP pattern.			
Turbine Unit Priority	0	per FPP				
Turbine 1% Efficiency	0	per FPP				

## OTHER ISSUES:

### Operation

East & North fish ladders in full operation.  
Sluiceway open with 6 gates total. Units 1, 8 and 18 (unit 9 open in place of 8 beginning 8/22 due to unit 8 outage)  
Spillway open with summer juvenile passage (40% river).  
FPP spill pattern have gates 1 - 6 closed. Noticable decrease in north ladder passage. Doing a closer investigation.

### Outages

MU5 FOOS through 8/29/2019 for T3 GSU transformer replacement  
MU6 OOS through 8/29/2019 for T3 GSU transformer replacement  
T10 (MU19 & 20) FOOS through 10/28/2021 due to acetylene levels  
MU7 and 8 OOS for GSU replacement work 8/23

### Maintenance

Calibration check 8/20: more adjustments to east and west, however entrances maintaining criteria.  
Collection channel dewatering pumps 5 and 6 rehab ongoing. Completion prior to Dec for dewatering.  
Fishway automation parts purchase ongoing. Labor for assembly and install FY20.  
Engineering evaluation of east fishway diffuser valve status/rehab to resume.  
Spillway assessment (MRER) in progress. No funding for FY20. Spillgate 9 fish priority well communicated.

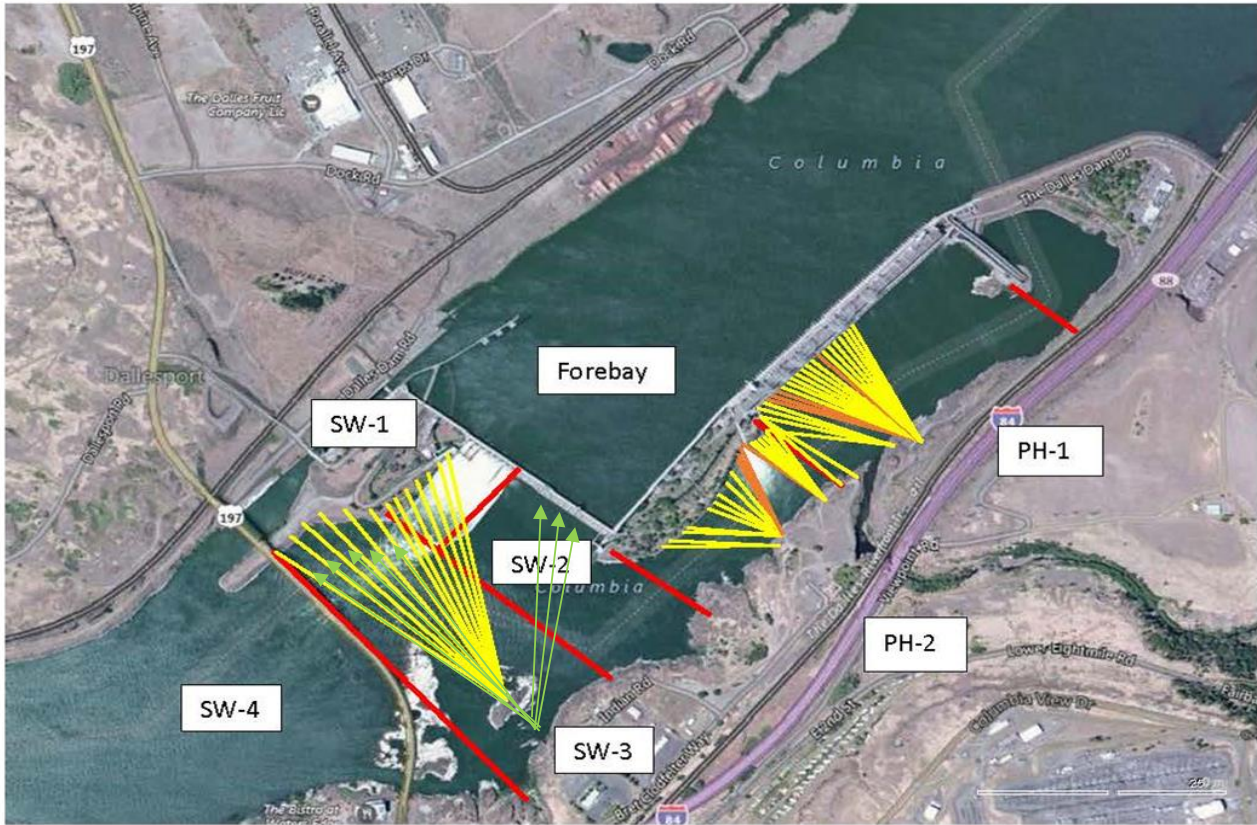
### Predators

USDA hazing season concluded July 31. Post season meeting 9/10 at The Dalles to determine planning for next season. Includes 3 lower Columbia projects.  
Continue collecting observation data on Pelicans to determine target species. Numbers of pelicans high, gull counts low normal.  
Sea Lions not observed from dam year to date.

### Research/Construction/Contractors

Fish counting contractors (Four Peaks) fish counting continues.  
For fish count data refer to; [FPC FISH COUNTS](#)  
AWS backup - Moving forward with follow on contract items and spare parts. Pre meeting this week with potential vendors.  
Transformer replacement - T3 ongoing. Testing after august completion. Date to be determined  
PSMFC weekly PUD sampling last sample taken for season on 7/31. To resume next April.  
PITAGS north and east fishladder data collection at count stations continues.  
Pikeminnow dam angling-24/week & 2217 YTD. **Bass/Walleye catch and release continues.** States in 3rd year of internal discussions on the matter.  
ODFW monthly fishway inspections ongoing.  
Lamprey minor mods - Planning for potential LPS in junction pool. Awaiting planning meetings.  
Univ of Idaho lamprey radiotelemetry - Second season of lamprey passage night flow completion last week of August for total 18 night flow adjustments.  
Lamprey trapping - Continues with 355 YTD. New hoist performing well.  
Fish unit breaker replace.- Planning second season of work Dec1-Mid Jan. Multiple measures taken to avoid last years unacceptable schedule slip.  
Fish unit rehab - Ongoing for phase 1A.

Approved by: Mike Colesar  
Operation Project Manager The Dalles Dam



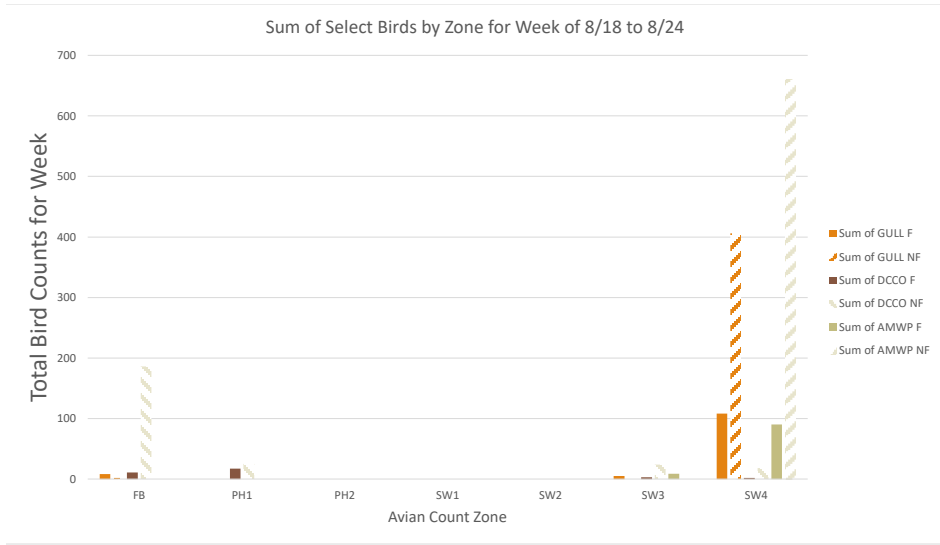
Red lines = avian zones

Yellow lines = current wires

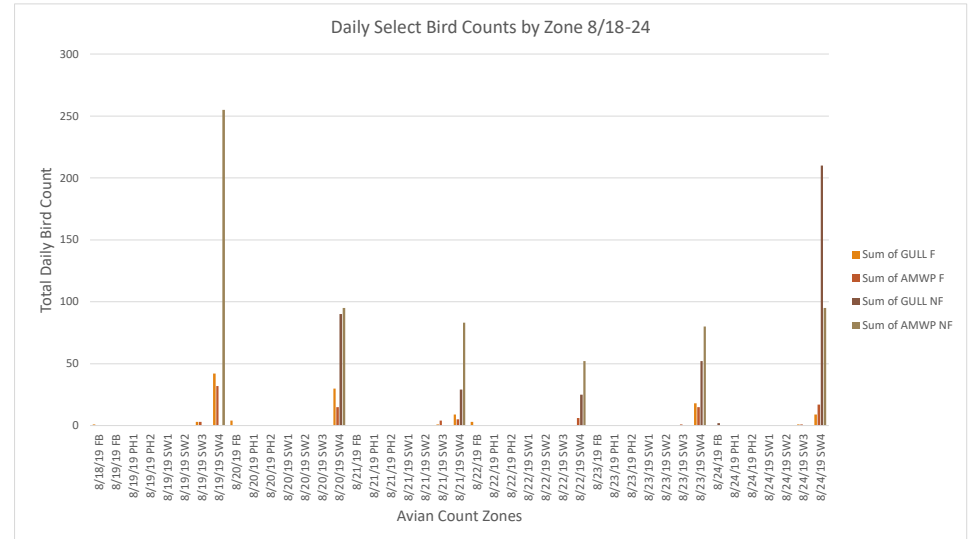
Orange lines = down or missing wires



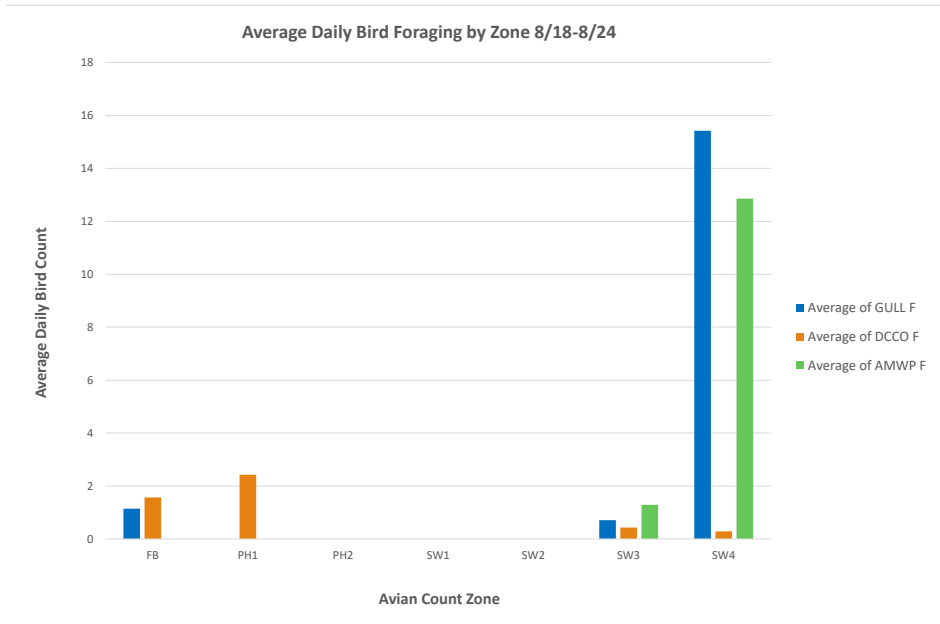
Additional avian lines installed 9/2018



Graph shows relationship of species and zones while foraging and not-foraging.



Graph shows relationship between GULL and AMWP daily activity in zones SW3 and SW4.

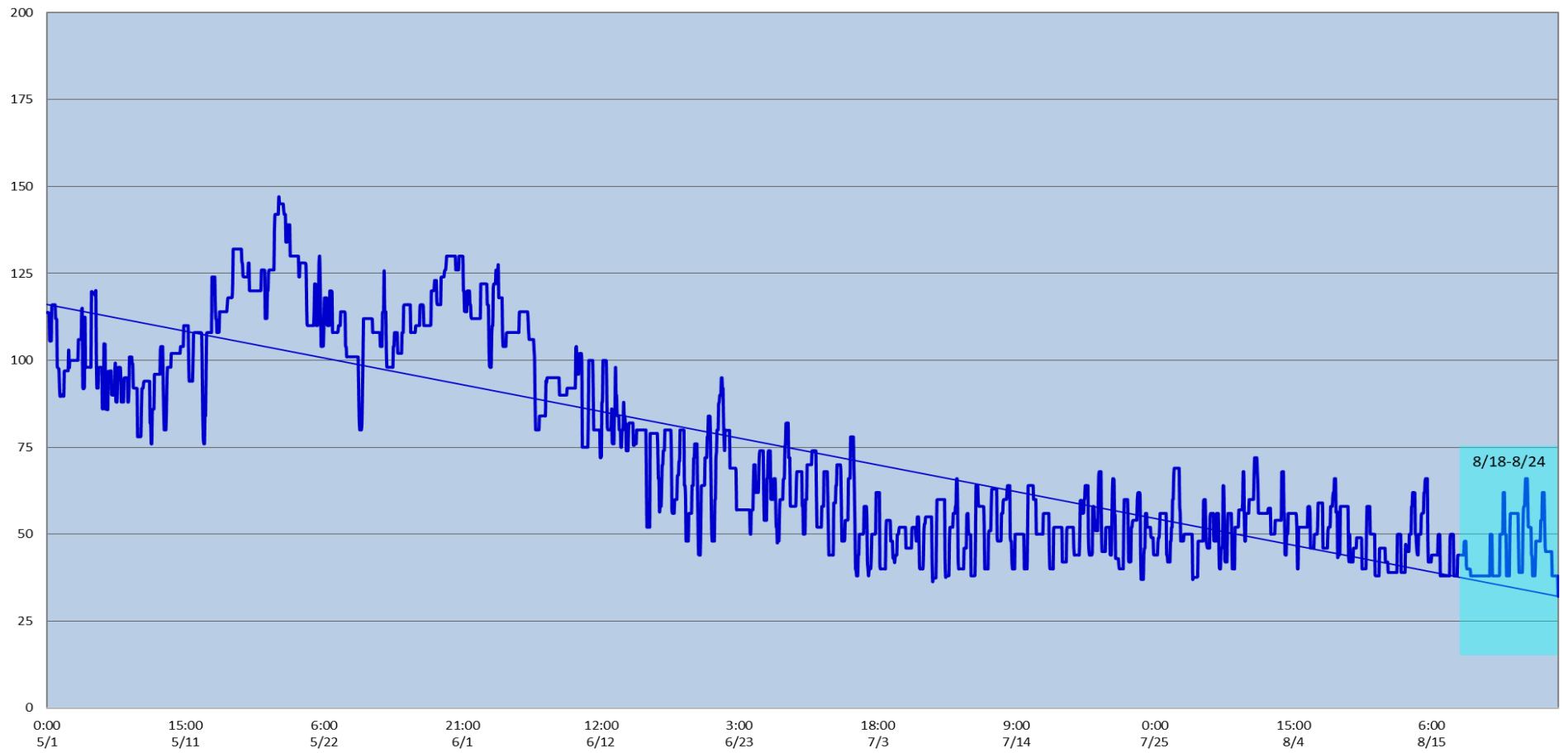


# The Dalles Dam Fish Ladder(s) - River Temperatures

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



# Spill KCFS



		USGS:
Secchi:		Temperatures
8/18	5.0	Sun 71.0
8/19	5.0	Mon 71.2
8/20	5.0	Tue 71.4
8/21	5.0	Wed 71.6
8/22	4.5	Thurs 71.2
8/23	5.0	Fri 71.2
8/24	5.0	Sat 71.3
	4.9	AVG 71.3

Aug. Temps

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

SCADA INSPECTION  
Lamprey passage modifications  
Data omitted

Date:	North Ladder Entrance		East Ladder											
			East Entrance- open					West Entrance				South Entrance		
	Differential	N1 Depth	Differential	E1 Depth	E2 Depth	E3 Depth	JP 6	Differential	W1	W2	W3	Differential	S1	S2
8/18			1.5		8.5	8.5	11.3	1.5	8.5	8.5		1.6	8.5	8.5
	1.3	9.7	1.5		13.4	13.4	11.2	1.5	8.5	8.5		1.5	8.4	8.4
	1.3	9.8	1.5		13.5	13.5	11.3	1.5	8.5	8.5		1.4	8.6	8.6
8/19			1.5		13.5	13.5	11.1	1.5	8.5	8.5		1.5	8.4	8.4
	1.3	9.7	1.5		13.5	13.5	11.1	1.5	8.4	8.4		1.5	8.4	8.4
	1.3	9.7	1.4		13.5	13.5	11.2	1.5	8.4	8.4		1.5	8.4	8.4
8/20			1.5		13.5	13.5	11.4	1.4	8.5	8.5		1.5	8.5	8.5
	1.3	9.7	1.6		13.6	13.4	11.3	1.5	8.4	8.4		1.5	8.4	8.4
	1.3	9.8	1.5		13.5	13.5	11.3	1.5	8.7	8.7		1.5	8.6	8.6
8/21			1.5		13.7	13.7	11.4	1.6	8.5	8.5		1.5	8.6	8.6
	1.3	9.8	1.6		13.5	13.5	11.6	1.4	8.6	8.6		1.5	8.4	8.4
	1.3	9.8	1.7		13.4	13.4	12	1.7	8.4	8.4		1.5	8.5	8.5
8/22			0.7		13.7	13.7	11.4	0.6	10.7	10.7		0.7	11.6	11.6
	1.3	9.7	1.6		13.5	13.5	11.8	1.6	8.4	8.4		1.5	8.6	8.6
	1.3	9.7	1.6		13.8	13.8	12.7	1.6	8.8	8.8		1.5	8.6	8.6
8/23			1.1		13.8	13.8	10.7	1.3	8.8	8.8		1.5	8.4	8.4
	1.3	9.7	1.4		12.9	12.9	10.5	1.4	8.9	8.9		1.5	8.4	8.4
	1.2	9.7	1.6		12.9	12.9	10.5	1.4	8.6	8.6		1.5	8.4	8.4
8/24			1.5		13	13	11	1.5	8.8	8.8		1.6	8.5	8.5
	1.3	9.7	1.6		13	13	11	1.5	8.9	8.9		1.5	8.5	8.5
	1.2	9.7	1.4		13.2	13.1	10.6	1.3	8.8	8.8		1.5	8.5	8.5
<b>AVG:</b>	<b>1.3</b>	<b>9.7</b>	<b>1.5</b>		<b>13.2</b>	<b>13.1</b>	<b>11.3</b>	<b>1.5</b>	<b>8.6</b>	<b>8.6</b>		<b>1.5</b>	<b>8.5</b>	<b>8.5</b>

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