

The Dalles Dam Fishway Status Report

08/11/19

Inspection Period: August 4 - August 10, 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: 72.0 °F	Secchi: 5+ 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'	1.3 average			
Entrance weir N1	0	depth (≥ 8')	9.6 average			
Entrance weir N2	0	Closed				
PUD Intake differential	0	≤ 0.5'				
EAST FISHWAY						
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				
East entrance differential	0	1.0' - 2.0'	1.4 average			
Entrance weir E1	0	No criteria				
Entrance weir E2	0	depth (≥ 8')	13.3 average			
Entrance weir E3	0	depth (≥ 8')	13.3 average			
Collection channel velocity	0	1.5 - 4 fps	2.42 fps	Range: 2.87 fps MU3 - 1.76 fps MU5		
Transportation channel velocity	0	1.5 - 4 fps	2.23 fps			
North channel velocity	0	1.5 - 4 fps	2.36 fps			
South channel velocity	0	1.5 - 4 fps	3.40 fps			
West entrance differential	0	1.0' - 2.0'	1.4 average			
Entrance weir W1	0	depth (≥ 8')	8.6 average			
Entrance weir W2	0	depth (≥ 8')	8.6 average			
Entrance weir W3	closed	No criteria				
South entrance differential	0	1.0' - 2.0'	1.5 average			
Entrance weir S1	0	depth (≥ 8')	8.6 average			
Entrance weir S2	0	depth (≥ 8')	8.6 average			
JUVENILE PASSAGE						
Sluiceway operation	0	Units 1, 8, 18				
Turbine trashrack drawdown	0	<1.5', biwklly	Inspection 8/5/19. Shad morts in gatewells 7-2, 7-3, 8-1.			
Spill volume/pattern	0	None				
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
Spillway open with summer juvenile passage (40% river).
Spill below 100 kcfs= increase passage north.

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
SSO2 OOS through 8/15/2019 for O/H.
Fish unit 1 and 2 east attraction flow off 8/8 ~0700-1400 for ROV grating inspection
PUD turbine north attraction flow off 8/8 ~1315-1430 for ROV grating inspection

Maintenance

ROV inspection of fishway grating 8/8. No problems found.
Calibration check 8/5: East and West entrance channels slightly out of 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. Higher priority gates 1-9 for rehab.

Predators

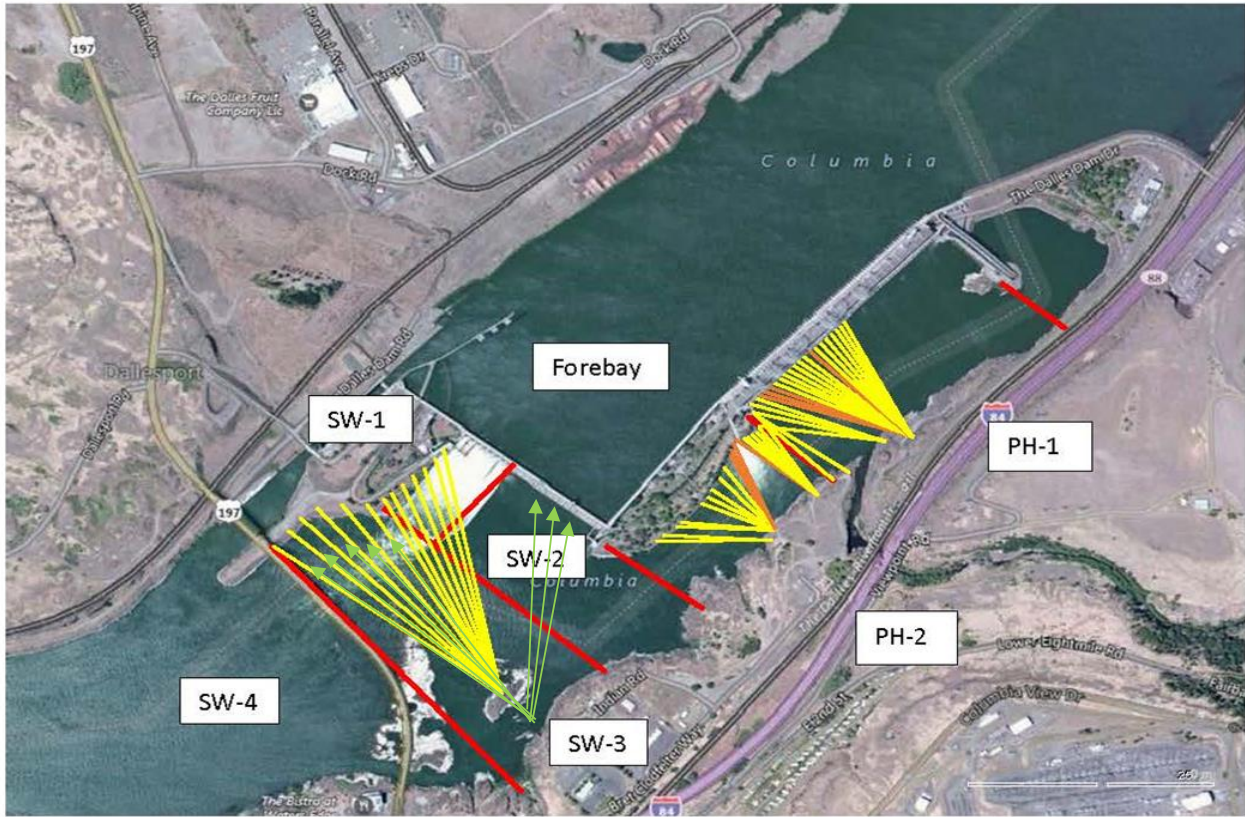
USDA hazing season concluded July 31. End of season meeting TBD
Continue collecting dip and tip count evidence of Pelicans targeting shad. Numbers of pelicans high, gull counts low normal.
Sea Lions not observed from dam year to date.

Research/Construction/Contractors

Fish counting contractors (Four Peaks) on site and counting.
For fish count data refer to; [FPC FISH COUNTS](#)
AWS backup - Team compiling list for follow on contract items and spare parts.
Transformer replacement - T3 ongoing. Testing after august completion. Date to be determined
PSMFC weekly PUD sampling last sample taken for season on 7/31
PITAGS north and east fishladder data collection at count stations continues.
Pikeminnow dam angling-48/week & 2142 YTD. **Bass/Walleye catch and release continues.**
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 started 6/4. 12 of 18 completed.
Lamprey trapping - 355 YTD
Fish unit breaker replace.- Fish units returned to service. Substantial cleanup likely next winter. Awaiting schedule from contractor.
Fish unit rehab - Ongoing for phase 1A.

Approved by: Mike Colesar

Operation Project Manager The Dalles Dam

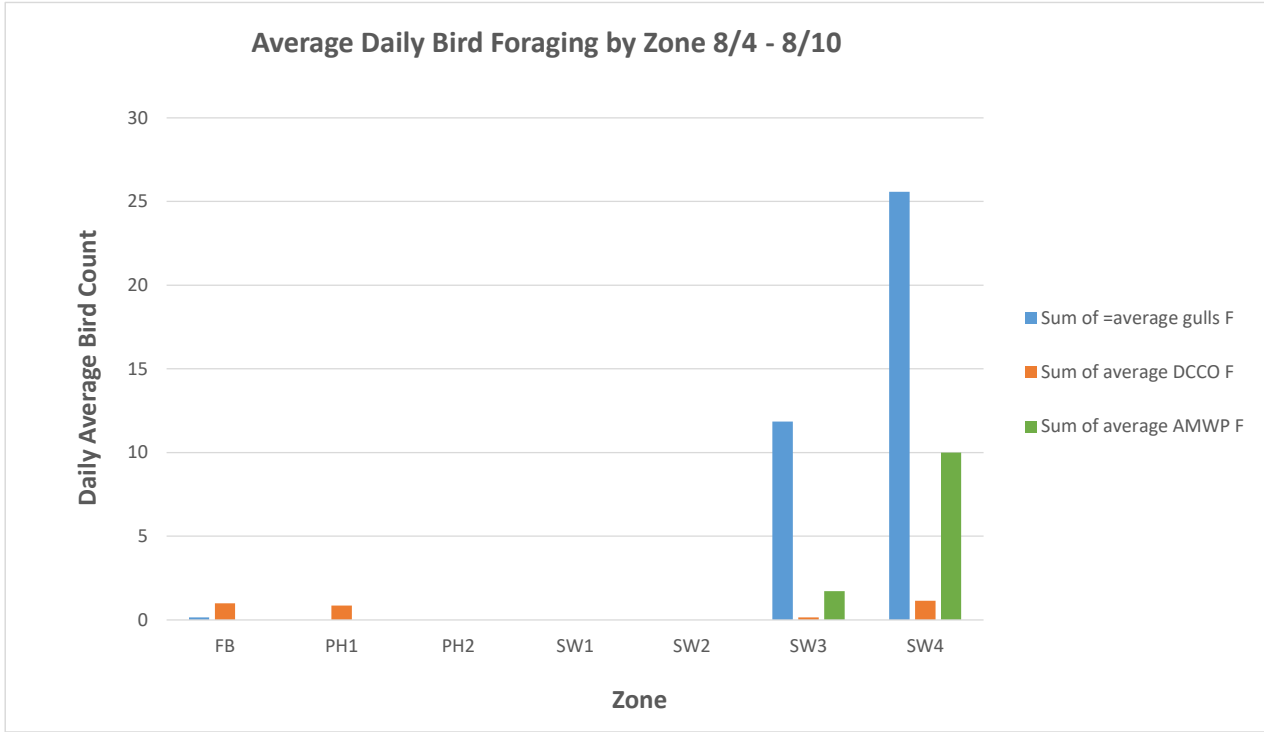
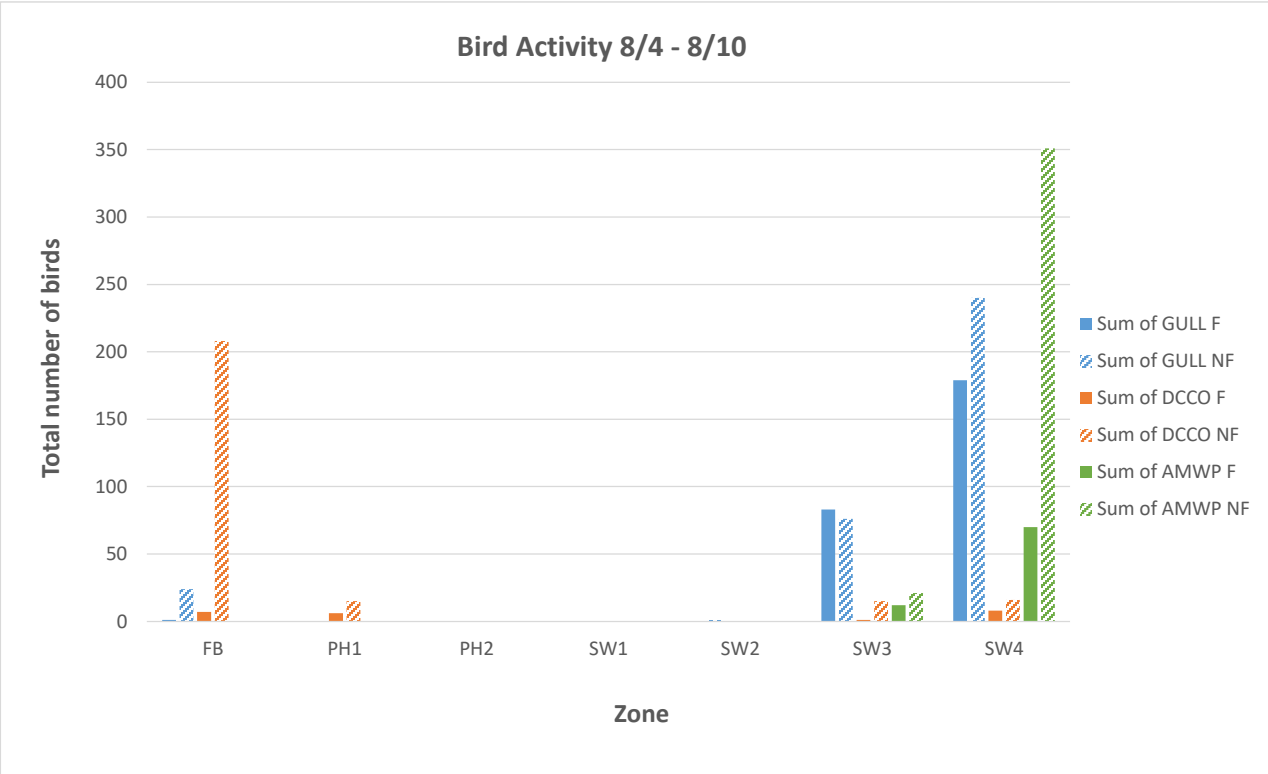


Red lines = avian zones

Yellow lines = current wires

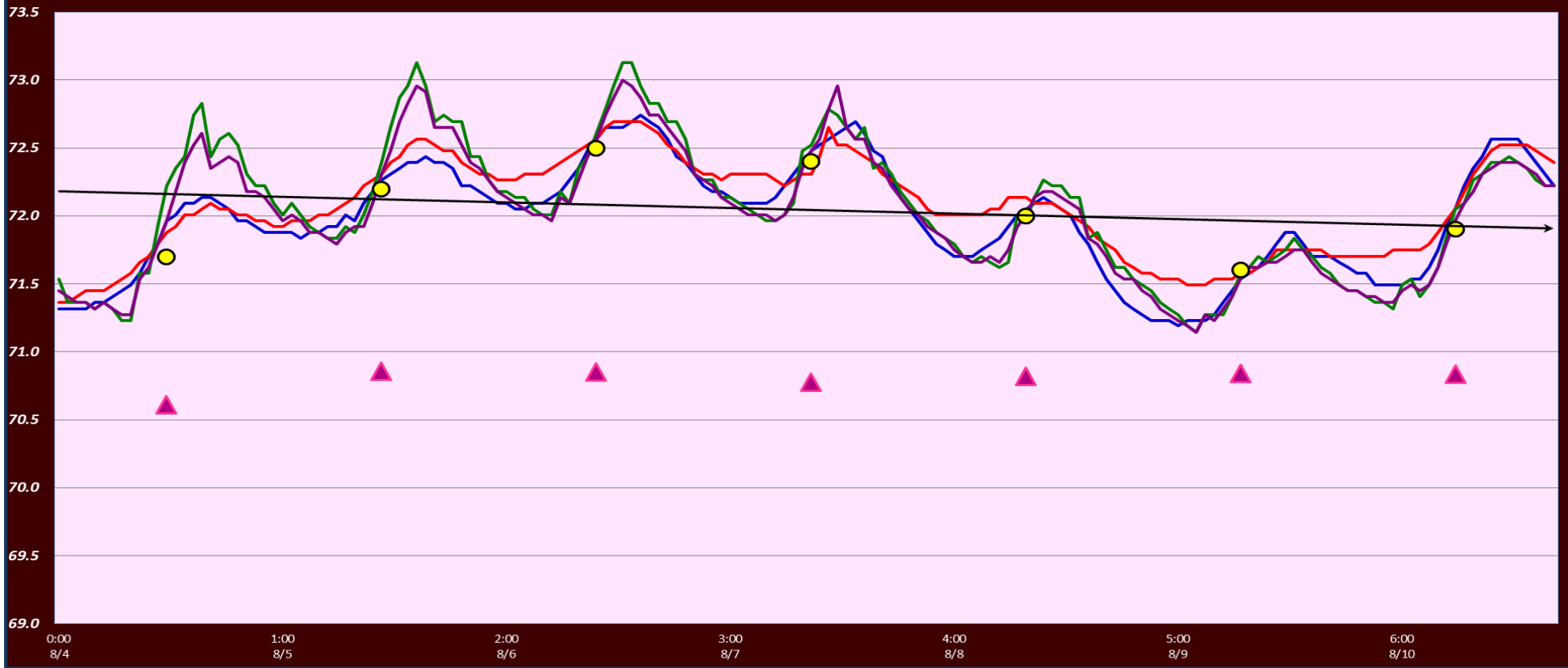
Orange lines = down or missing wires

→ Additional avian lines installed 9/2018

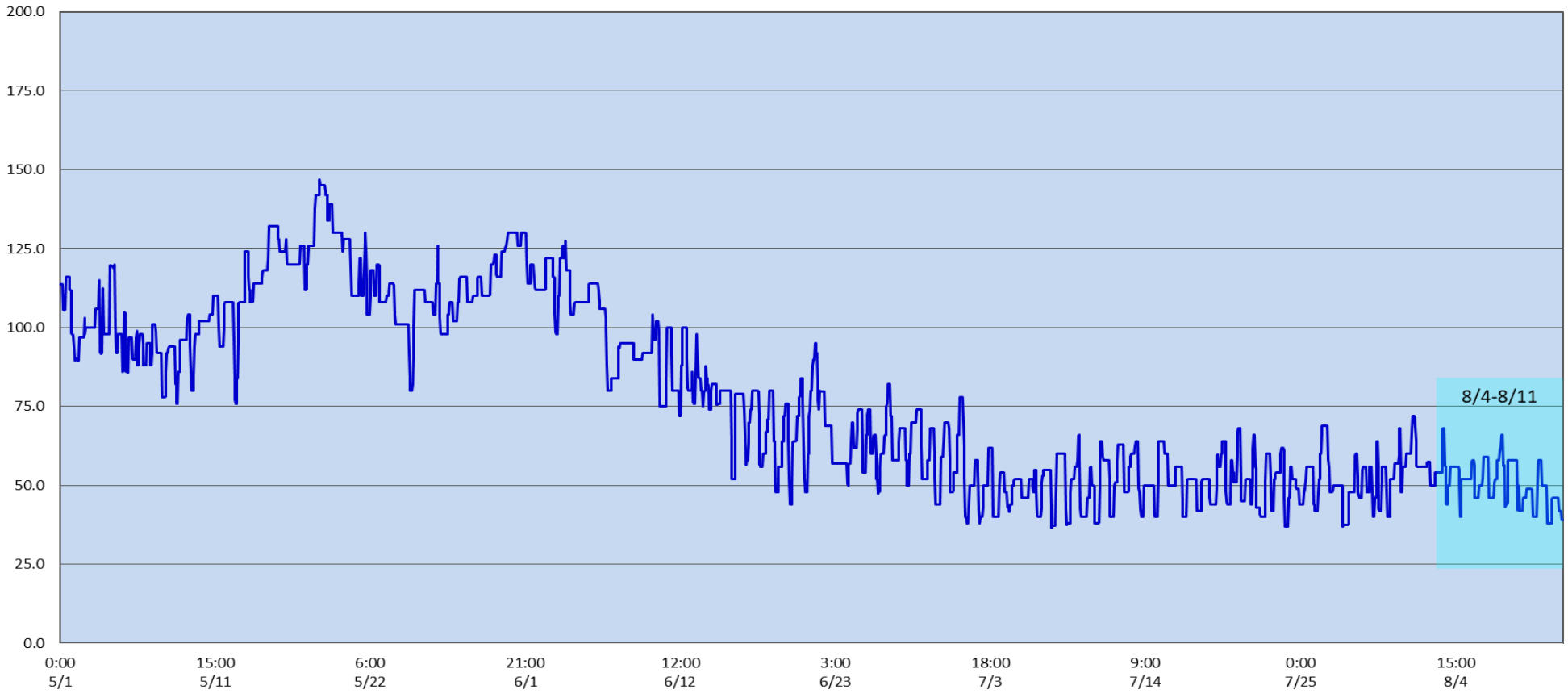


The Dalles Dam Adult Fish Ladder(s) - River Temperatures

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



Spill KCFS



		USGS:
Secchi:		Temperatures
8/4	Sun	71.7
8/5	Mon	72.2
8/6	Tue	72.5
8/7	Wed	72.4
8/8	Thurs	72.0
8/9	Fri	71.6
8/10	Sat	71.9
	AVG	72.0

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

SCADA INSPECTION
ROV, no 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
8/4			1.4		13.5	13.5	10.5	1.4	8.3	8.3		1.6	8.5	8.5
	1.3	9.7	1.4		13.4	13.4	10.4	1.9	8.3	8.3		1.5	8.6	8.6
	1.3	9.6	1.4		13.4	13.4	10.8	1.5	8.3	8.3		1.5	8.4	8.4
8/5			1.4		13.7	13.7	10.4	1.5	8.2	8.2		1.5	8.5	8.5
	1.3	9.6	1.4		13.5	13.5	10.3	1.3	8.4	8.4		1.5	8.5	8.5
	1.3	9.7	1.5		13	13	10.8	1.5	8.3	8.3		1.5	8.5	8.5
8/6			0.7		13.2	13.2	10.9	0.7	10.1	10.1		0.7	11.3	11.3
	1.3	9.7	1.4		13.5	13.5	10.7	1.5	8.6	8.6		1.5	8.4	8.4
	1.3	9.6	1.5		13.2	13.2	11.3	1.5	8.6	8.6		1.7	8.5	8.5
8/7			1.3		13.4	13.4	10.7	1.5	8.6	8.6		1.5	8.5	8.5
	1.3	9.6												
			1.5		13.5	13.5	11.7	1.6	8.5	8.5		1.5	8.6	8.6
8/8			1.3		13.5	13.5	10.8	1.4	8.6	8.6		1.5	8.4	8.4
	1.3	9.7	1.6		13.6	13.6	11.6	1.5	8.5	8.5		1.5	8.5	8.5
	1.3	9.7	1.5		13.4	13.6	11.8	1.6	8.4	8.4		1.6	8.4	8.4
8/9			1.3		13.6	13.6	10.2	1.3	8.5	8.5		1.5	8.4	8.4
	1.3	9.7	1.3		13.4	13.6	10.1	1.4	8.4	8.4		1.4	8.5	8.5
	1.3	9.6	1.3		13.1	13.2	10.2	1.3	8.6	8.6		1.5	8.3	8.3
8/10			1.5		12.7	12.7	11	1.4	8.6	8.6		1.6	8.4	8.4
	1.3	9.7	1.5		13	13	10.9	1.6	8.6	8.6		1.5	8.5	8.5
	1.3	9.6	1.6		13.3	13.2	11.4	1.5	8.6	8.6		1.4	8.5	8.6
AVG:	1.3	9.7	1.4		13.3	13.4	10.8	1.4	8.6	8.6		1.5	8.6	8.6

Fishways are inspected twice daily plus one SCADA inspection.