

The Dalles Dam Fishway Status Report

2/12/23

Inspection Period 2/5-2/12, 2023

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: 6		Temperature: 37.8 °F
			Comments: Both fish units flow in east ladder		Weekly Ave. Secchi: 5.0

NORTH FISHWAY

Exit differential	No attraction water at north entrance.	≤ 0.5'			
Count station differential		≤ 0.3'			
Weir crest depth		1.0' ± 0.1'			
Entrance weir N1		depth (≥ 8')	Average for the week	#DIV/0!	
Entrance Differential		1.0' - 2.0'	Average for the week	#DIV/0!	
N2		Closed			
PUD Intake differential		≤ 0.5'			

EAST FISHWAY

Exit differential	0	≤ 0.5'	Significant floating mats of weeds at east exit. Not effecting flows or fish passage.		
Removable weirs 154-157	0	Per forebay	Note; 155 weir hoist failed. Forebay restriction minimum 157' applied.		
Weir 158-159 differential	0	1.1' ± 0.1'			
Count station differential	0	≤ 0.3'	Less weed plugging at pickets.		
153 Weir crest depth	0	1.3' ± 0.1'			
Junction pool weir JP6	0	> 7.0'	Weekly average	9.3	
East entrance differential	0	1.0' - 2.0'	Weekly average	1.5	
Entrance weir E1	0	No criteria	Weekly average	3.3	
Entrance weir E2	0	depth (≥ 8')	Weekly average	11.0	
Entrance weir E3	0	depth (≥ 8')	Weekly average	11.0	
Collection channel velocity	0	1.5 - 4 fps	1.6 fps 11/3		
Transportation channel velocity	0	1.5 - 4 fps	4.3 fps 11/3		
North channel velocity	0	1.5 - 4 fps	3.32 fps 11/5		
South channel velocity	0	1.5 - 4 fps	4.47 fps 10/15		
West entrance differential	0	1.0' - 2.0'	Weekly average	1.6	
Entrance weir W1	0	depth (≥ 8')	Weekly average	9.9	
Entrance weir W2	0	depth (≥ 8')	Weekly average	10.0	Single fish unit operation
Entrance weir W3	0	No criteria	Weekly average	-4.2	
South entrance differential	0	1.0' - 2.0'	Weekly average	1.4	
Entrance weir S1	0	depth (≥ 8')	Weekly average	9.3	
Entrance weir S2	0	depth (≥ 8')	Weekly average	9.1	Single fish unit operation

JUVENILE BYPASS

Sluicgate operation	0	Units 1, 8, 18	Intakes MU1, 8, 16 and 18 open to recirculate. Endgate closed.		
Turbine trashrack drawdown	0	<1.5', biwkly	Nothing to report.		
Spill volume/pattern	0	1 to 22	NO SPILL.		
Turbine Unit Priority	0	per FPP			
Gatewells	0	Weekly	Nothing to report. No trash.		

Current Outages

MU19 & MU20 FOOS 10/07/2018 1205 – 10/27/2023 1700 T10 ACETYLENE
MU12 OOS 04/12/2021 0001 – 9/22/2023 ANNUAL
MU18 OOS 08/29/2022 0630-2/16/2023 1700, ANNUAL
T9 OOS 02/06/2022 0630 – 02/16/2022 1700, T9 TESTING
MU17 OOS 02/06/2023 0630 – 03/30/2023 1700, TURBINE BEARING
MU17 & MU18 OOS 02/06/2023 0630 – 03/30/2023 1700 FOR STRAINER
MU2 OOS 02/08/2023 1132-02/16/2023@1700 LOW GOV OIL

Maintenance

Plan for fish unit intake trashrack rake to be usable by March 1
Weir 155 replacing gearbox bearings. Completion by March 1.
AWS intake trashrack debris management - PDT reviewing alternatives.
Planning spill gates 9 and 10 cable and gearbox swap. Now bulkhead seals replacement needed. Completion estimate March
Spillway assessment; Spillgates 1- 9 rehab 2034. Includes spillbay 9 trunnion pin repair. Spillway crane first priority
North count station brush motor replaced.
North fishladder intake trashrack minor repairs completed.
North count station crowder drive repaired.
Preliminary calibration numbers of entrance gates taken, inconsistent due to low tailwater.

Predators

Bald eagles greatly reduced with the mild 40F weather. Group of 3-5 western gulls. Cormorant numbers greatly reduced.
Planning removal of bass/walleye/catfish from all dewaterings for gut sample analysis. Presently in WDFW permit process.

Research/Construction/Contractors

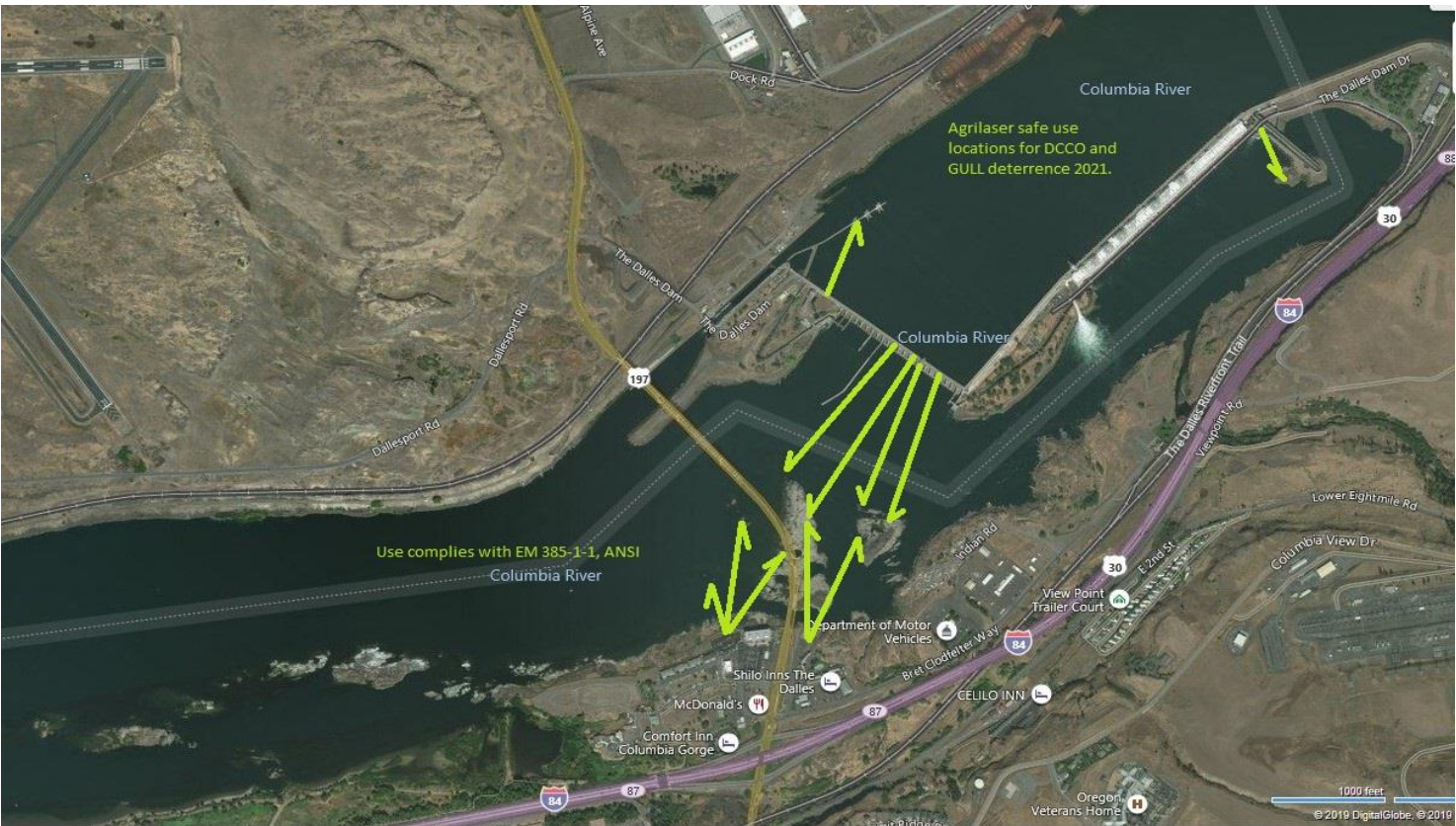
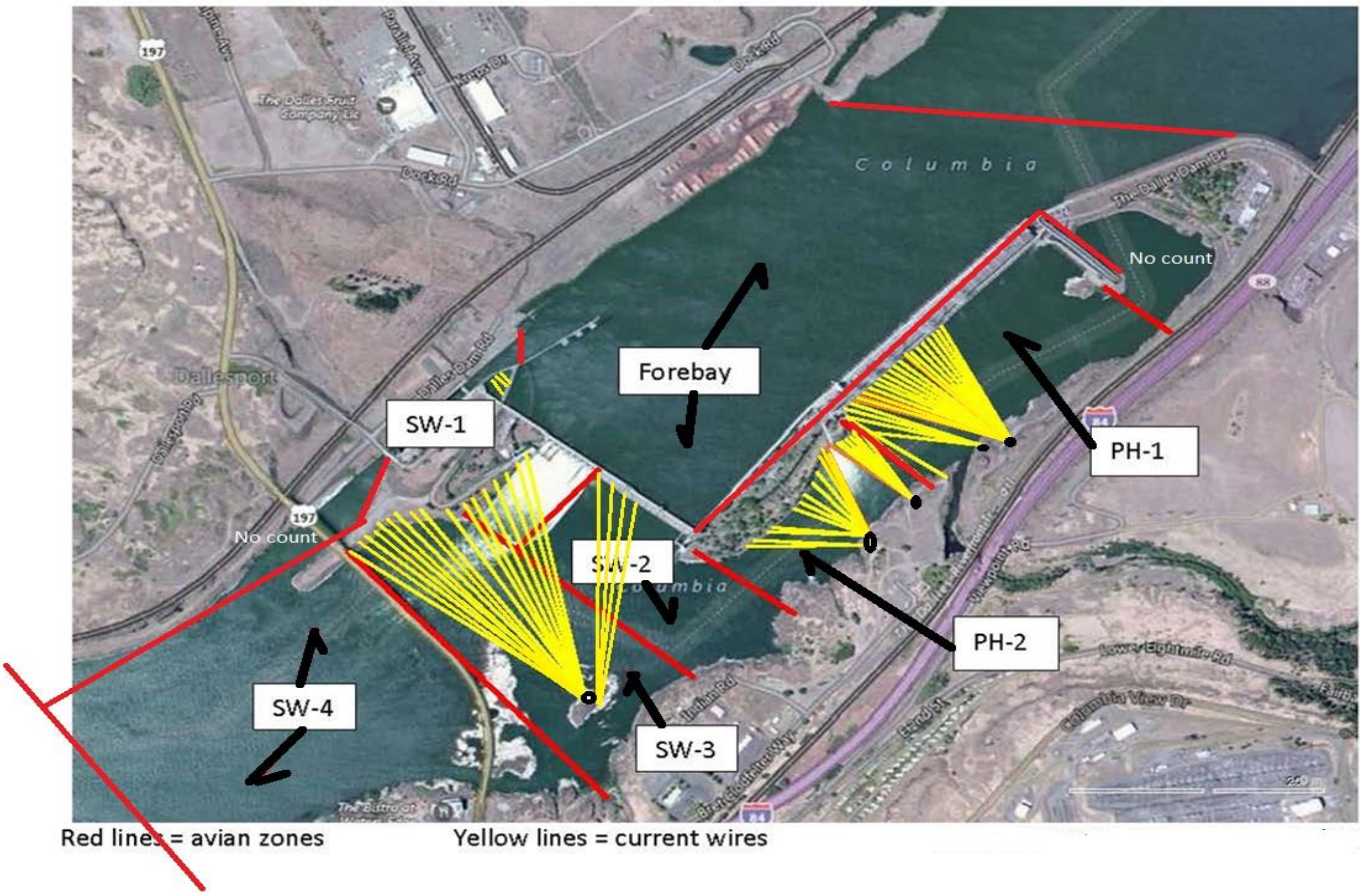
USGS river temperatures link [USGS ladder-river temperatures](#)
4 peaks video counting will occur through winter.
Supporting lamprey improvements PDT. Two of 4 exit weir modified with lamprey orifice, Investigating mods for entrance weirs
PTAGIS fishladder data collection at count stations continues

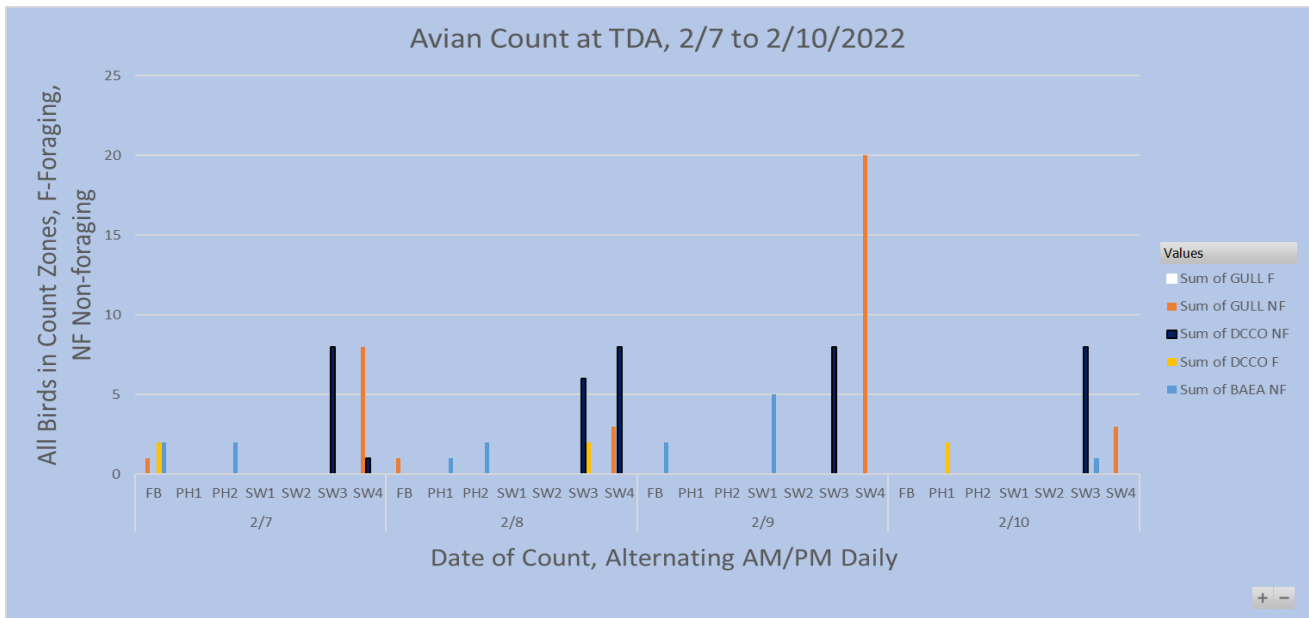
Operations

Ice Trash sluiceway endgate closed. Sluiceways open to forebay.
East fishway in service with 1 fish unit #2. North fishladder in service with no attraction flow for maintenance.

Approved by: Ron Twiner, Operation Project Manager, The Dalles Dam

Bird Count Zones, Avian Lines and Laser Deterrent Sites

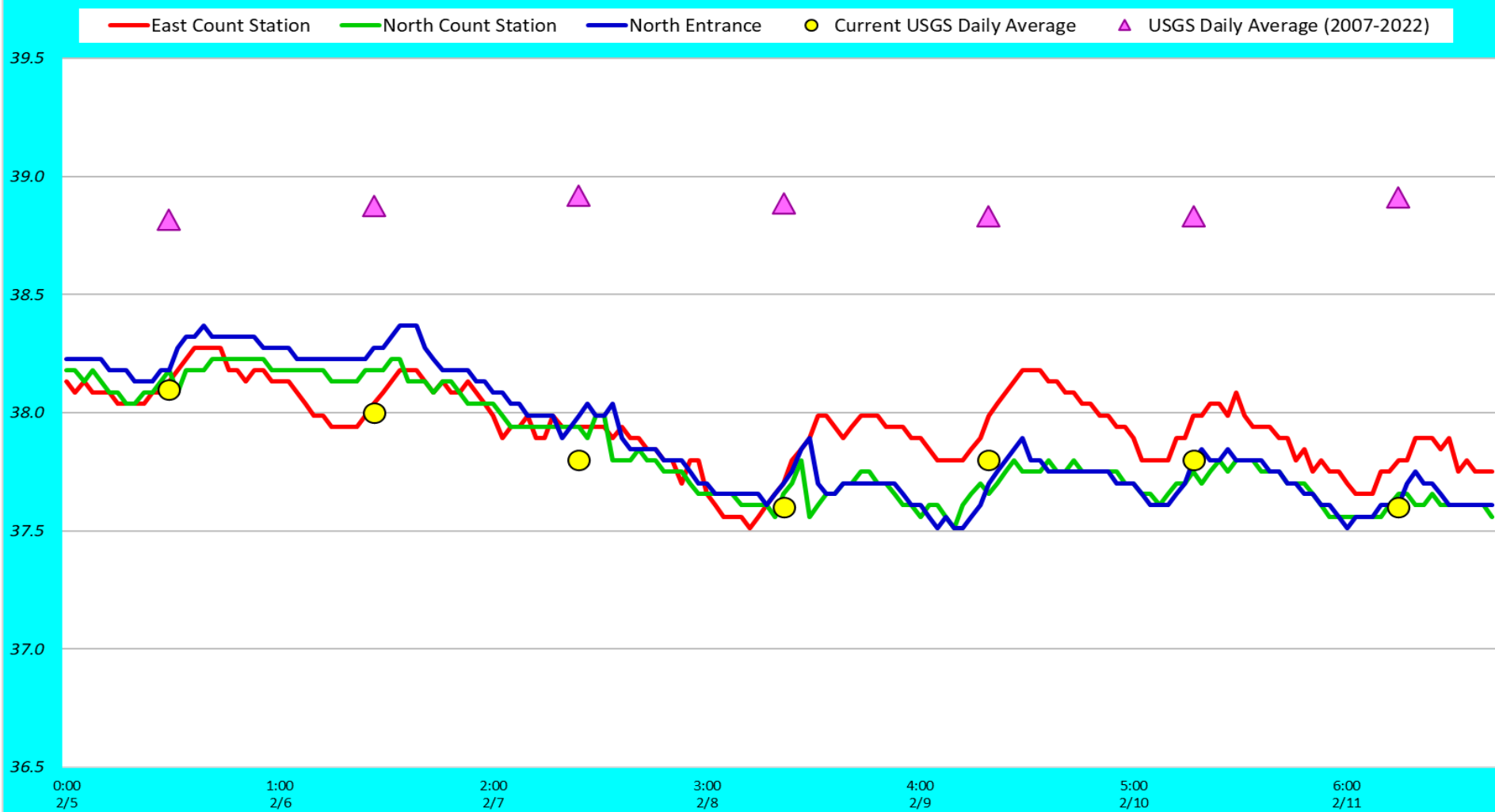




Lack of adult shad fallback or juvenile shad prey, warm temps and low flows reduce avian predation.

can we claim any of this empirically??

Adult Fish Ladders-USGS River Temperatures



Secchi:		USGS F°
5.0	Sun	38.1
5.0	Mon	38.0
5.0	Tue	37.8
5.0	Wed	37.6
5.0	Thurs	37.8
5.0	Fri	37.8
5.0	Sat	37.6
5.0	AVG	37.8

Reporting week data

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		
2/5	RTS 02/13															
2/6																
2/7		1.5	4.0	10.9	10.9	10.0	1.5	10.2	10.2	-3.8	1.4	9.3	9.3			
2/8		1.4	3.1	11.1	11.2	9.1	1.6	9.0	9.0	-4.5	1.4	9.1	8.9			
		1.5	2.6	11.1	11.2	8.7	1.6	9.7	9.7	-4.8	1.4	8.9	8.7			
2/9		1.6	3.5	10.8	10.8	8.6	1.5	10.1	10.1	-4.8	1.4	8.8	8.8			
2/10		1.6	2.7	10.9	11.0	8.7	2.6	9.7	9.7	-4.7	1.4	9.4	8.3			
		1.4	4.1	11.0	11.0	10.1	1.4	10.4	10.4	-2.9	1.3	10.0	10.0			
2/11		1.4	2.7	11.4	11.4	9.7	1.3	10.5	10.5	-3.9	1.5	9.6	9.6			
AVG:		#DIV/0!	#DIV/0!	1.5	3.3	11.0	11.1	9.3	1.6	9.9	10.0	-4.2	1.4	9.3	9.1	

Fishways inspected daily