

The Dalles Dam Fishway Status Report

7/16/23

Inspection Period 07/09-07/15, 2023

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: 14		Temperature: 70.2 °F
			Comments: flows decrease.		Weekly Ave. Secchi: 5.0

NORTH FISHWAY

Exit differential	0	≤ 0.5'			
Count station differential	0	≤ 0.3'			
Weir crest depth	0	1.0' ± 0.1'			
Entrance weir N1	0	depth (≥ 8')	Average for the week	9.9	
Entrance Differential	0	1.0' - 2.0'	Average for the week	1.3	
N2		Closed			
PUD Intake differential	0	≤ 0.5'			

EAST FISHWAY

Exit differential	0	≤ 0.5'	Not measured per FPP		
Removable weirs 154-157	0	Per forebay	Weir 157 continues to have problems returning to raised limit, slightly dragging due to electrical?		
Weir 158-159 differential	0	1.1' ± 0.1'	W158 weir top flow low at times due to FB transition in elevation.		
Count station differential	0	≤ 0.3'			
153 Weir crest depth	0	1' ± 0.1'	154' per FPP.		
Junction pool weir JP6	0	> 7.0'	Weekly average	10.5	
East entrance differential	0	1.0' - 2.0'	Weekly average	2.1	
Entrance weir E1	0	No criteria	Weekly average	8.2	
Entrance weir E2	0	depth (≥ 8')	Weekly average	10.5	
Entrance weir E3	0	depth (≥ 8')	Weekly average	10.5	
Collection channel velocity	0	1.5 - 4 fps	2.69 fps 7/3/23		
Transportation channel velocity	1	1.5 - 4 fps	4.11 fps 7/14/23	Again, likely result of low tailwaters at time of measurement.	
North channel velocity	0	1.5 - 4 fps	2.77 fps 7/15/23		
South entrance	1	1.5 - 4 fps	5.15 fps 7/4/23 Very low tailwater at time of sample may create this velocity.		
West entrance differential	0	1.0' - 2.0'	Weekly average	1.5	
Entrance weir W1	0	depth (≥ 8')	Weekly average	9.9	
Entrance weir W2	0	depth (≥ 8')	Weekly average	10.1	
Entrance weir W3	0	No criteria	Weekly average	-2.2	
South entrance differential	0	1.0' - 2.0'	Weekly average	1.4	
Entrance weir S1	0	depth (≥ 8')	Weekly average	10.1	
Entrance weir S2	0	depth (≥ 8')	Weekly average	9.7	

JUVENILE BYPASS

Sluiceway operation	0	Units 1, 8, 18	3-8-18 gates open.		
Turbine trashrack drawdown	0	<1.5', biwklly	7/4/2023 All in criteria.		
Spill volume/pattern	0	1 to 22	1-8 bays in operation daily		
Turbine Unit Priority	0	per FPP			
Gatewells	0	Weekly	Fish live in gatewells, mostly adult shad and chinook yearlings.		

Current Outages

MU1 OOS 06/26/2023 0630 – 07/12/23 1700, ANNUAL
MU4 OOS 04/17/2023 0630 – 9/28/2023 1700, ANNUAL
MU12 OOS 04/12/2021 0001 – 9/22/2023 ANNUAL
MU16 OOS 05/22/2023 0630 – 07/20/2023 1700, 6 YR O/H
MU19 & MU20 FOOS 10/07/2018 1205 – 10/31/2025 1700 T10 ACETYLENE

Maintenance

Exploring contractors for removal of vegetation from north ladder this winter
Calibrations at fishways entrances are all within criteria 7/14/2023
Planning spill gates 9 and 10 cable and gearbox swap. Resealing bulkheads.
Spillway assessment; Spillgates 1- 9 rehab 2034. Spillway crane replace first priority. Reviewing gate operation frequency.
Plan in place for fish unit intake trashrack rake in preparation for potential debris issues. Monitoring fish unit differential.
Relocated Tori line to east. 7/15 Fouled on bottom due to startup of MU21.

Predators

Reduced pelicans foraging spillway tailrace eddy line off spillwall 70-80 in SW4.
20 foraging gulls in SW3 now with lower flows. DCCO's remain on BPA towers with ~6 nests occupied.
Planning removal of bass/walleye/catfish from all dewaterings for gut sample analysis. Working on permit.
Falconry abatement finished for year. Planning to add RC boat trial July 16th.
Planning construction of custom tori lines for other ladder entrance locations.

Research/Construction/Contractors

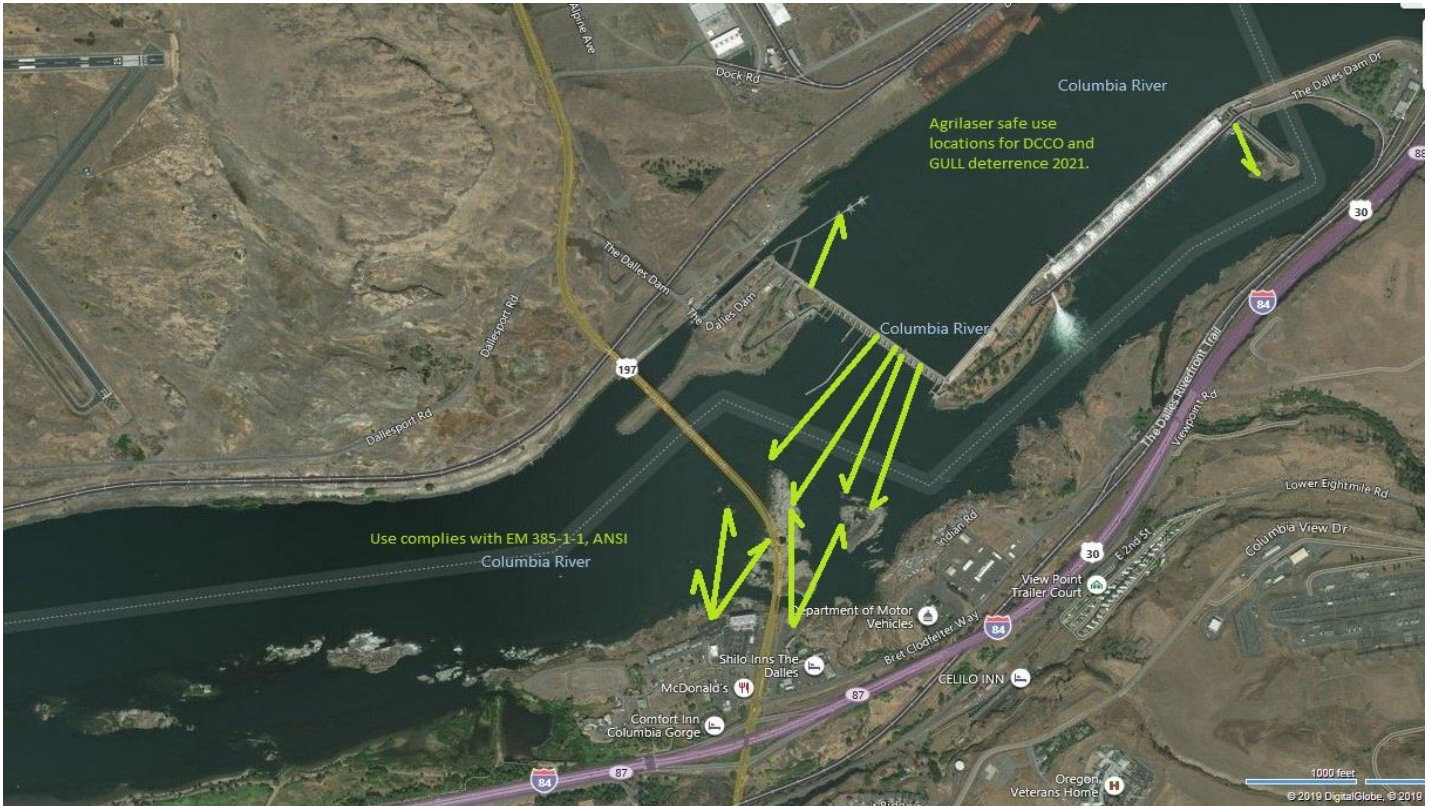
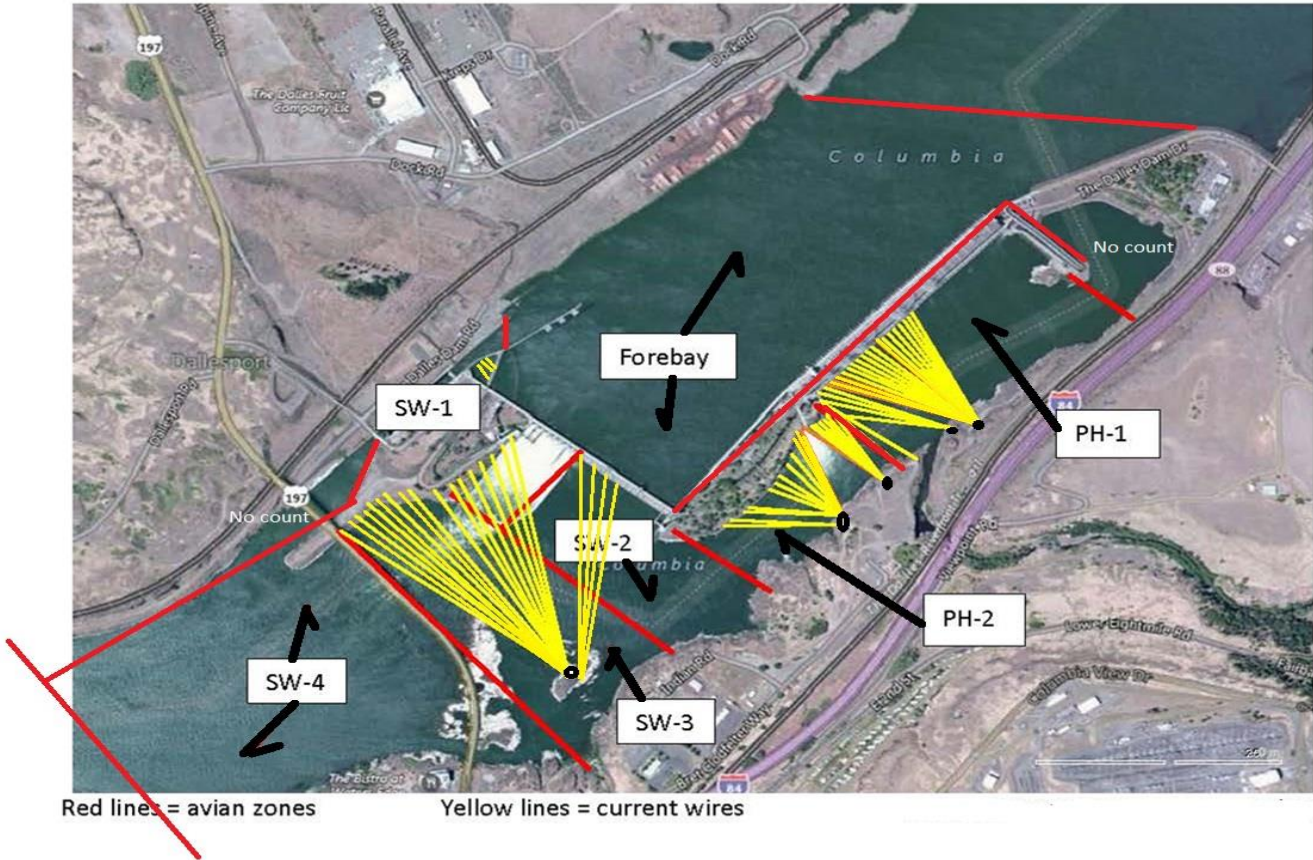
Northern Pikeminnow Management Program (NPM) >=230 231 for the week, 1335 YTD
USGS temperature link- °F
4 Peaks conduction fish counts, night video commenced
Supporting lamprey improvements PDT. Two of 4 exit weir modified with lamprey orifice, other 2 next winter.
ODFW conducting monthly fishway inspections.
PTAGIS fishladder data collection at count stations continues
zebra mussel sample taken 7/14.

Operations

Sluice gates 3-1, 3-2, 3-3, 8-1, 8-3, 18-2 open

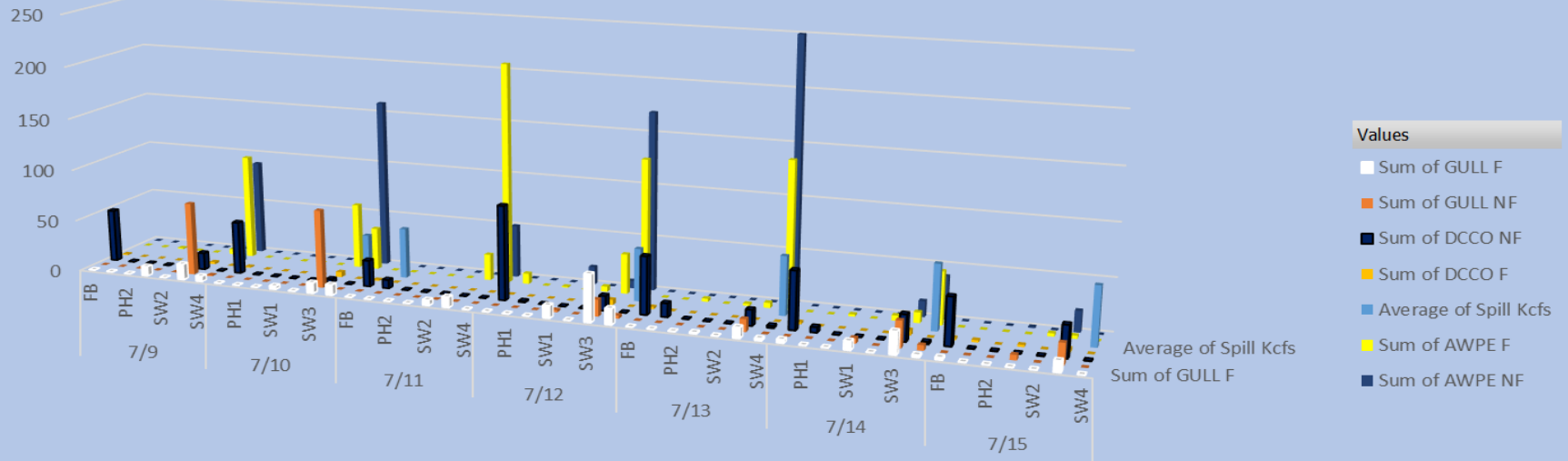
Approved by: Ron Twiner, Operation Project Manager, The Dalles Dam

Bird Count Zones, Avian Lines and Laser Deterrent Sites



Avian Count at TDA, 7/9 to 7/15/2023

All Birds in Count Zones, F-Foraging, NF Non-foraging

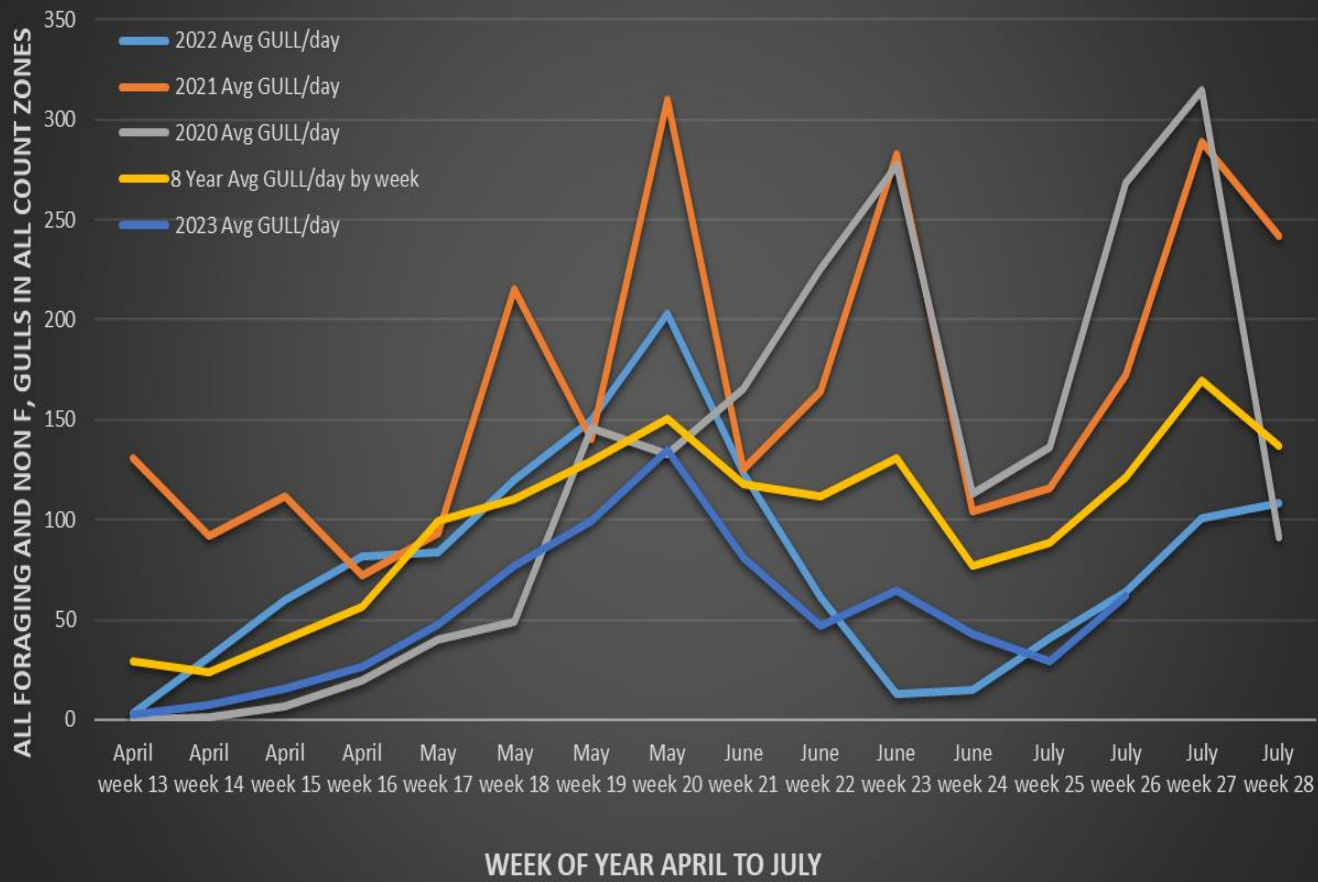


Date of Count, Alternating AM/PM Daily



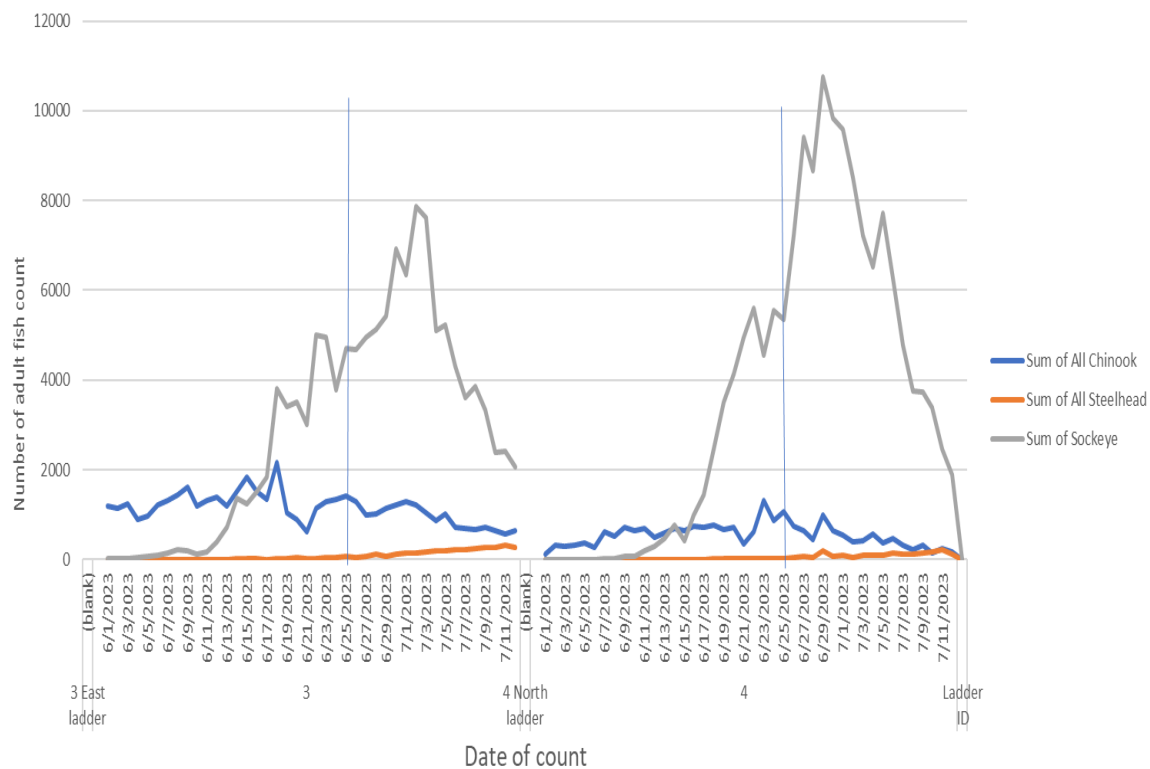
USDA began hazing pelicans on 7/14

TDA Daily Mean # of GULLS by Week, April to July 2020 and 2021, 2022, 2023 Compared to Previous 8 years Daily Mean.



Gull numbers rising as Pelicans dropping.

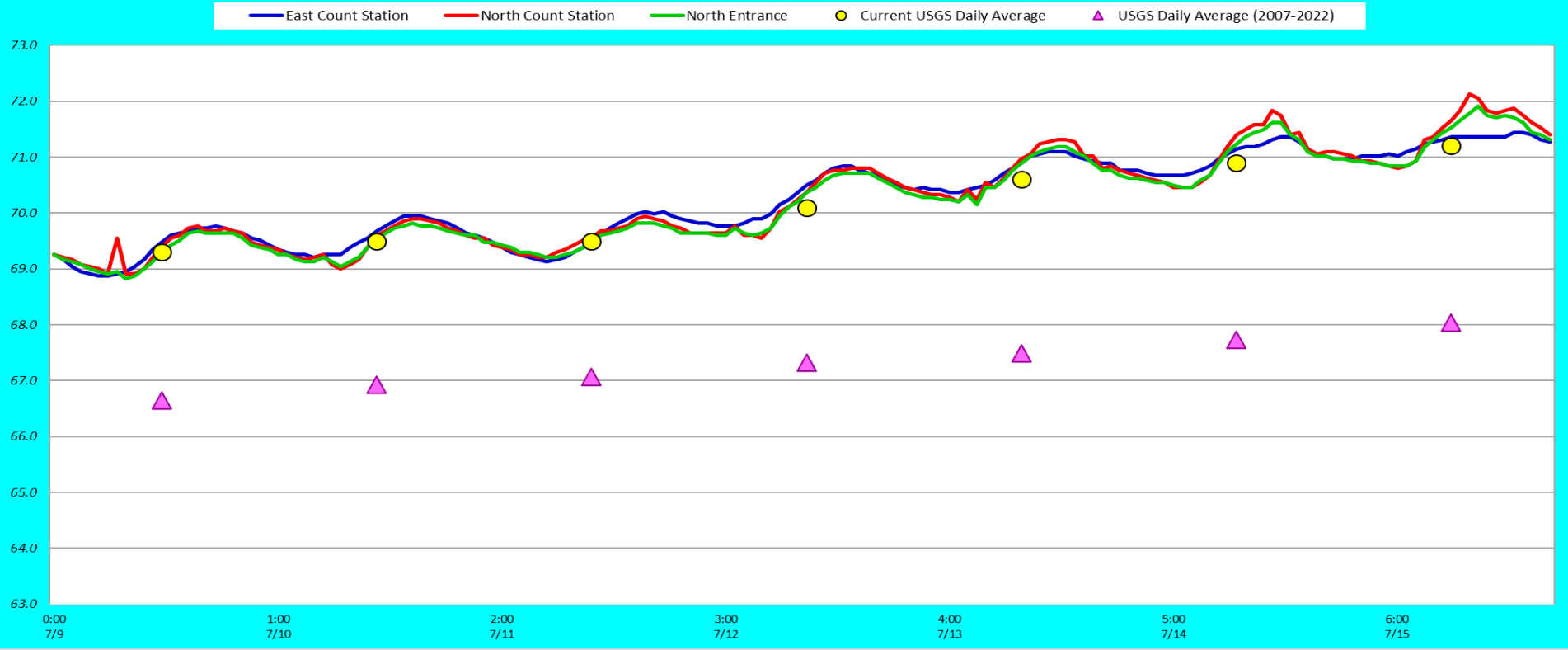
The Dalles Comparison of ladder split June 1 to July 12th 2023. Tori line deployed at east entrance on 6/26 and moved to south entrance on 7/6/2023.



No obvious detriment from tori line deployment.

Fu

Adult Fish Ladders-River Temperatures



Secchi:		USGS F°
5.0	Sun	69.3
5.0	Mon	69.5
5.0	Tue	69.5
5.0	Wed	70.1
5.0	Thurs	70.6
5.0	Fri	70.9
5.0	Sat	71.2
5.0	AVG	70.2

Reporting week data

Date:	North Ladder		East Ladder											
			East Entrance					West Entrance			South Entrance			
	Differential	N1 Depth	Differential	E1 Depth	E2 Depth	E3 Depth	JP 6	Differential	W1	W2	W3	Differential	S1	S2
7/9	1.3	10.1	1.5	9.2	11.2	11.4	11.2	1.5	10.3	10.5	-2.0	1.4	10.0	9.7
	1.4	10.0	1.4	10.3	11.8	12.0	12.3	1.3	11.1	11.3	-1.0	1.3	10.3	9.9
7/10	1.3	9.9	9.7	0.0	2.5	2.8	2.0	1.7	9.4	9.7	-3.0	1.4	10.0	9.5
	1.2	10.0	1.7	7.5	10.5	10.9	9.5	1.6	9.4	9.6	-3.6	1.6	9.6	8.9
7/11	1.3	9.9	1.5	7.4	10.8	11.2	9.4	1.6	9.5	9.7	-3.8	1.4	10.0	9.2
	1.4	9.8	1.4	7.9	11.3	11.8	9.9	1.4	9.9	10.2	-3.3	1.4	10.2	10.5
7/12	1.3	9.9	1.5	8.6	10.9	11.3	10.6	1.4	10.3	10.6	-2.7	1.3	10.4	9.6
	1.3	10.0	1.4	8.8	10.1	11.5	10.8	1.4	10.5	10.8	-2.5	1.3	10.4	9.7
7/13	1.3	9.9	1.6	9.3	10.9	11.2	11.2	1.6	9.8	10.0	-2.0			
	1.2	9.8	1.5	9.3	11.0	11.2	11.3	1.5	9.8	10.0	-2.0	1.4	10.0	9.9
7/14	1.3	10.0	1.5	9.5	11.2	11.4	11.5	1.5	9.8	10.0	-1.7	1.3	10.4	10.1
	0.9	10.6	1.3	11.4	11.9	12.0	13.4	1.3	10.1	10.3	0.0	1.5	10.1	9.9
7/15	1.3	9.8	1.5	7.9	11.4	11.7	11.9	1.6	9.5	9.7	-1.4	1.4	10.4	9.7
	1.3	9.4	1.5	7.8	12.1	12.1	11.8	1.5	9.5	9.7	-1.3	1.3	10.2	
AVG:	1.3	9.9	2.1	8.2	10.5	10.9	10.5	1.5	9.9	10.1	-2.2	1.4	10.1	9.7

Fishways inspected twice daily



Fallback chinook ECS window 7/15 reported by counter video