

The Dalles Dam Fishway Status Report

6/18/23

Inspection Period 06/11-06/17, 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: 64.2 °F
			Comments: flow decrease. Turbidity improving.		Weekly Ave. Secchi: 4.5

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	10.5	
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'			
Removable weirs 154-157	0	Per forebay			
Weir 158-159 differential	0	1.1' ± 0.1'			
Count station differential	0	≤ 0.3'	Increased weir top flow 1.3' due to shad. raked pickets frequently.		
153 Weir crest depth	0	1' ± 0.1'			
Junction pool weir JP6	0	> 7.0'	Weekly average	11.6	
East entrance differential	0	1.0' - 2.0'	Weekly average	1.5	
Entrance weir E1	0	No criteria	Weekly average	9.1	
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	1.94 fps 5/24/23		
Transportation channel velocity	0	1.5 - 4 fps	3.84 fps 6/4/23		
North channel velocity	0	1.5 - 4 fps	2.44 fps 6/5/23		
East entrance	0	1.5 - 4 fps	2.72 fps 5/24/23		
West entrance differential	0	1.0' - 2.0'	Weekly average	1.6	
Entrance weir W1	0	depth (≥ 8')	Weekly average	22.9	
Entrance weir W2	0	depth (≥ 8')	Weekly average	23.0	
Entrance weir W3	0	No criteria	Weekly average	-2.8	
South entrance differential	0	1.0' - 2.0'	Weekly average	1.4	
Entrance weir S1	0	depth (≥ 8')	Weekly average	10.3	
Entrance weir S2	0	depth (≥ 8')	Weekly average	9.1	

JUVENILE BYPASS

Sluiceway operation	0	Units 1, 8, 18	1-8-18 gates open. Significant floating trash in east sluiceway, large sturgeon mortality.		
Turbine trashrack drawdown	0	<1.5', biwkly	6/12/2023 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	Many fish in gatewells, mostly sub yearlings. 5 mortality, MU16-1 sub yearlings.		

Current Outages

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 – 06/29/2023 1700, 6 YR O/H
MU19 & MU20 FOOS 10/07/2018 1205 – 10/31/2025 1700 T10 ACETYLENE

Maintenance

Plan in place for fish unit intake trashrack rake in preparation for potential debris issues. Monitoring fish unit differential. Calibrations at fishways entrances are all within criteria 6/13/2023
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.

Predators

60+ pelicans foraging spillway tailrace eddy line off spillwall and in SW4
50-20 foraging gulls in tailwater/FB/PH1 count zones DCCO's remain on BPA towers with ~32 nests.
Planning removal of bass/walleye/catfish from all dewaterings for gut sample analysis. Working on permit.
Falconry abatement at final week, Chasing gulls from PH1/2 and forebay to some success. Planning to add RC boat trial.
Dam angling picked up. June 5-11 = 386 NPM 477 YTD

Research/Construction/Contractors

WDFW dam anglers making periodic visits. Catch rates showing dramatic increase.
USGS river temperatures link <https://pweb.crohms.org/tmt/documents/ops/temp/202305.lcol.html>
4 Peaks fish counters 16hr/7 day/wk started Apr 1.
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

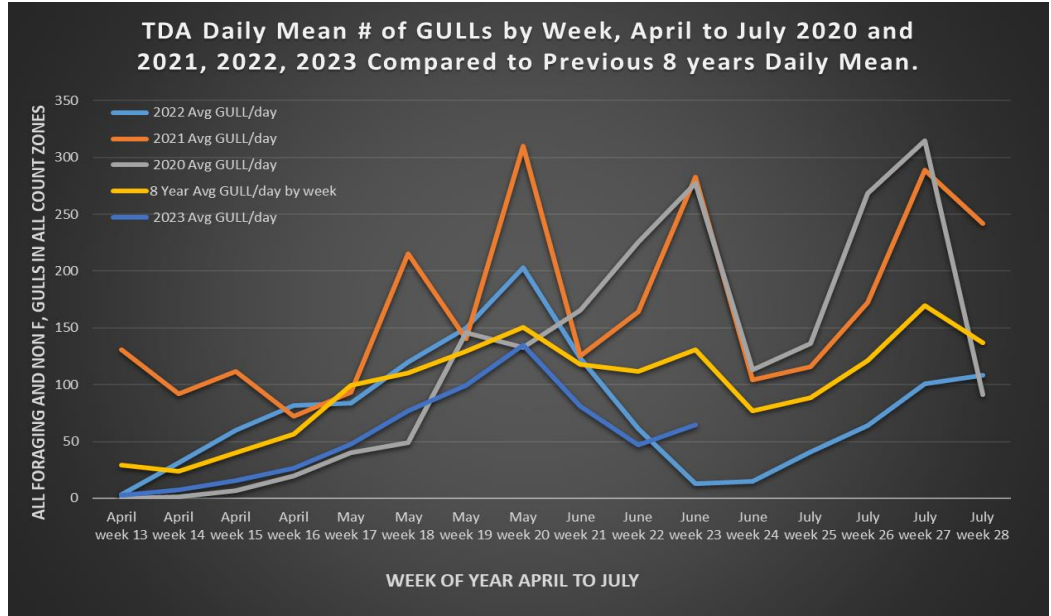
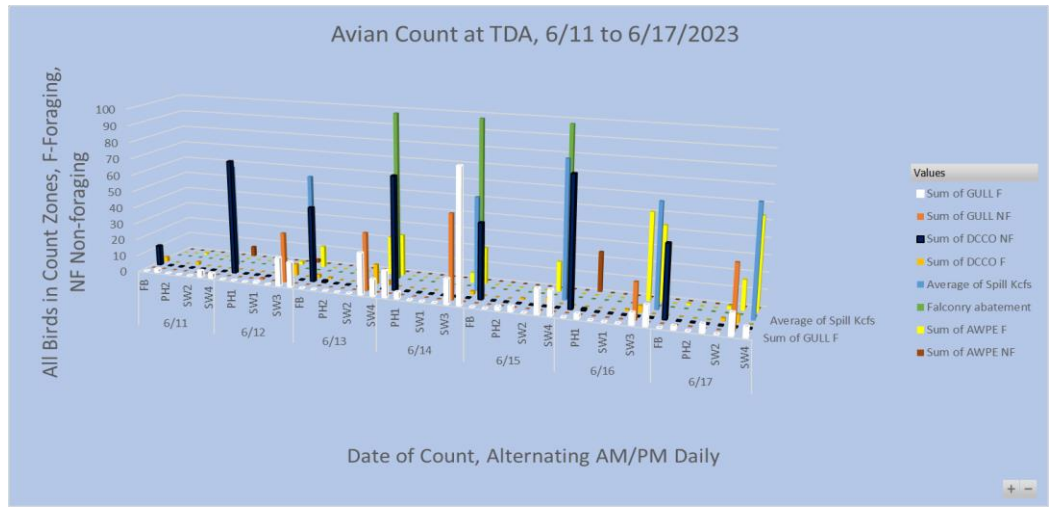
Operations

Sluice gates 1-1, 1-2, 1-3, 8-1, 8-3, 18-2 open
West end Gatewells contain significant numbers (50+) of sub yearlings, MU16 OOS mortality.

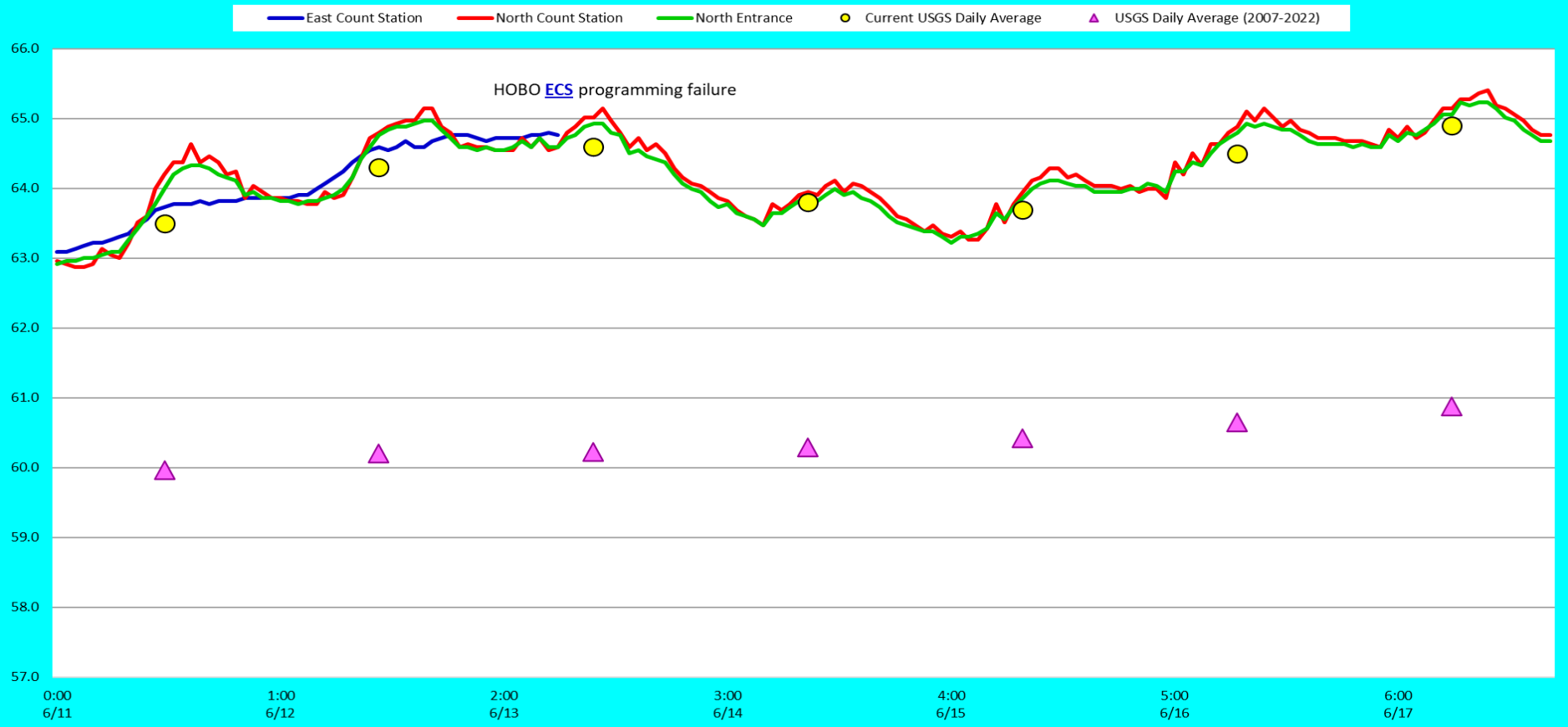
Approved by: Ron Twiner, Operation Project Manager, The Dalles Dam

Bird Count Zones, Avian Lines and Laser Deterrent Sites





Adult fish ladders-River Temperatures



Secchi:		USGS F°
4.0	Sun	63.5
4.0	Mon	64.3
4.0	Tue	64.6
4.5	Wed	63.8
5.0	Thurs	63.7
5.0	Fri	64.5
5.0	Sat	64.9
4.5	AVG	64.2

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
6/11	1.2	10.6	1.6	7.2	11.1	11.2	11.2	1.7	9.7	9.9	-3.3	1.3	10.5	9.4
	1.2	10.6	1.6	7.0	11.1	11.3	11.0	1.6	9.6	9.7	-3.4	1.4	10.5	0.0
6/12	1.2	10.6	1.6	6.8	11.1	11.3	10.8	1.6	69.7	69.8	-3.7	1.4	10.7	9.6
	1.2	10.6	1.4	8.8	11.2	11.4	10.8	1.6	69.7	69.7	-3.7	1.4	10.0	10.0
6/13	1.2	10.7	1.6	9.8	10.6	10.7	11.8	1.6	9.7	9.8	-2.7	1.4	9.1	10.1
	1.2	10.7	1.4	10.2	11.0	11.0	12.2	1.5	10.4	10.5	-2.3	1.4	10.4	10.2
6/14	1.2	10.5	1.5	9.4	10.9	11.1	11.4	1.5	10.2	10.4	-3.0	1.4	9.9	10.0
	1.4	10.5	1.3	10.6	11.8	12.0	12.6	1.4	10.6	10.8	-1.6	1.5	10.0	9.7
6/15	1.3	10.4	1.4	9.9	11.3	11.5	11.9	1.6	10.6	10.8	-2.6	1.3	10.2	10.0
	1.2	10.6	1.6	6.8	11.1	11.3	10.8	1.6	69.7	69.8	-3.7	1.4	10.7	9.6
6/16	1.3	10.4	1.6	9.9	10.5	10.6	11.9	1.5	10.1	10.2	-2.4	1.4	10.5	10.0
	1.3	10.4	1.7	9.7	10.3	10.4	11.7	1.6	9.9	10.1	-2.6	1.4	10.4	9.9
6/17	1.3	10.4	1.6	9.9	10.3	10.5	11.9	1.6	10.0	10.1	-2.5	1.4	10.3	9.8
	1.3	10.6	1.4	10.7	11.1	11.2	12.7	1.4	10.7	10.8	-1.8	1.4	10.5	9.7
AVG:	1.3	10.5	1.5	9.1	11.0	11.1	11.6	1.6	22.9	23.0	-2.8	1.4	10.3	9.1

Fishways inspected twice daily