

# The Dalles Dam Fishway Status Report

6/4/23

Inspection Period 05/28-06/3, 2023

## THE DALLES DAM



US Army Corps  
of Engineers  
Portland District

The Dalles Project-Fisheries  
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<b>The Dalles Dam</b>	<b>Inspections OOC</b>	<b>Criteria Limit</b>	<b>Total Number of Inspections:</b> 14		<b>Temperature:</b> 59.8 °F
			<b>Comments:</b> flow decrease. Turbidity improving.		<b>Weekly Ave. Secchi:</b> 3.1

### 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	11.2	
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	W 157 currently operated manually. Problem with 155 lift sequence. Maintenance trouble shooting		
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	14.4	
East entrance differential	0	1.0' - 2.0'	Weekly average	1.5	
Entrance weir E1	0	No criteria	Weekly average	9.7	
Entrance weir E2	0	depth (≥ 8')	Weekly average	11.2	
Entrance weir E3	0	depth (≥ 8')	Weekly average	11.2	
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	2.41 fps 3/11/23		
East entrance	0	1.5 - 4 fps	2.72 fps 5/24/23		
West entrance differential	0	1.0' - 2.0'	Weekly average	1.5	
Entrance weir W1	0	depth (≥ 8')	Weekly average	10.2	
Entrance weir W2	0	depth (≥ 8')	Weekly average	10.2	
Entrance weir W3	0	No criteria	Weekly average	-0.2	
South entrance differential	0	1.0' - 2.0'	Weekly average	1.4	
Entrance weir S1	0	depth (≥ 8')	Weekly average	11.2	
Entrance weir S2	0	depth (≥ 8')	Weekly average	9.3	

### 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	5/14/2023 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. No mortality. little trash east end.		

## 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  
-MU4 OOS 04/17/2023 0630 – 11/28/2023 1700, ANNUAL  
-MU15 OOS 05/22/2023 0630 – ??, ANNUAL  
-MU16 OOS 05/22/2023 0630 – 06/29/2023 1700, 6 YR O/H  
-MU11 OOS 06/05/2023 0630 – 06/15/2023 1700, ANNUAL

## 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 6/3/2023  
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.  
Weir 155 out of sequence , returned to criteria. Maintenance trouble shooting the problem.  
Weir 157 being operated manually, due to limit problems.

## Predators

10 pelicans foraging spillway tailrace eddy line off spillwall  
50-20 foraging gulls in tailwater/FB/PH1 count zones. Cormorants persisting on BPA towers with ~27 nests.  
Planning removal of bass/walleye/catfish from all dewaterings for gut sample analysis. Waiting on WDFW permit process.  
Falconry abatement at 8 weeks, Chasing gulls from PH1 and forebay to some success.

## Research/Construction/Contractors

WDFW dam anglers making periodic visits. Catch rates continue low with high turbid flows.  
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

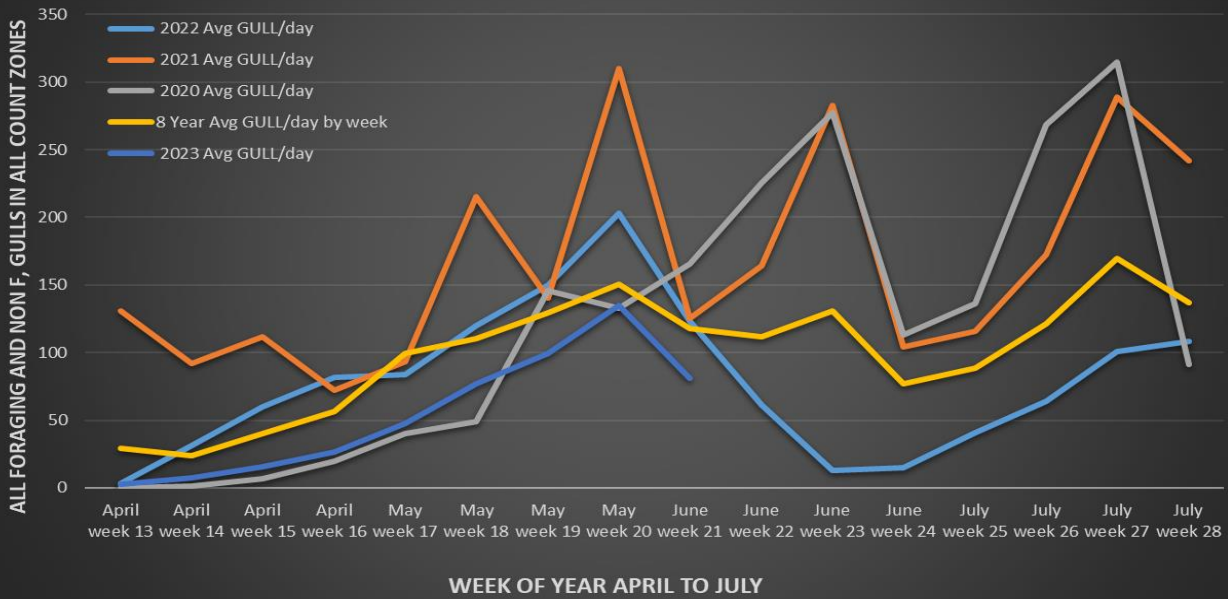
Fish units off for 1 hour during the one night last week to relieve excess differential on intake . Differential returned to normal.  
Sluice gates 1-1, 1-2, 1-3, 8-1, 8-3, 18-2 open  
Gatewells contain small numbers of sub yearlings, no visible mortality.

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

# Bird Count Zones, Avian Lines and Laser Deterrent Sites

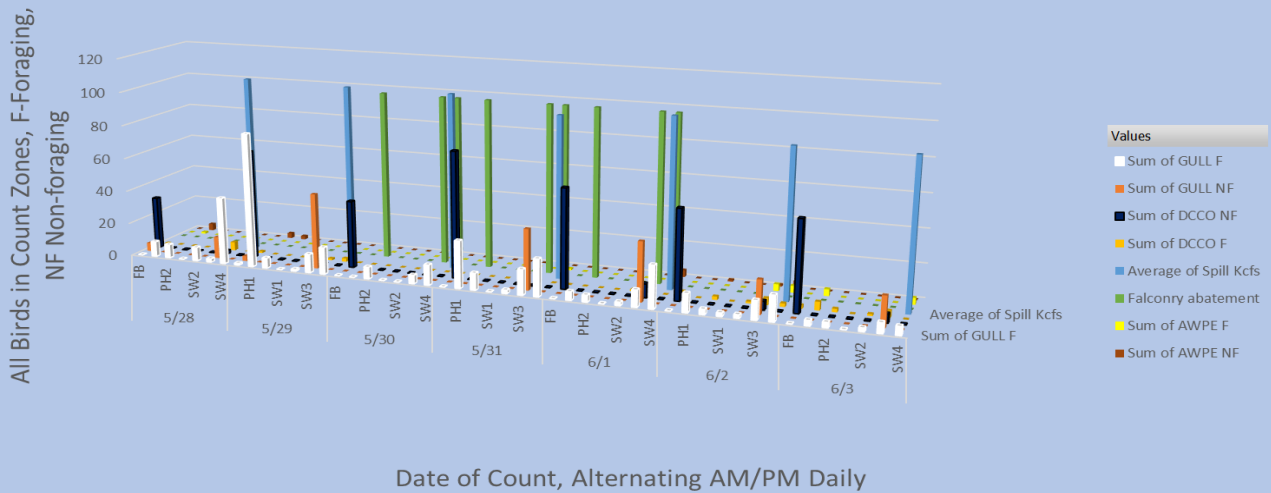


### TDA Daily Mean # of GULLS by Week, April to July 2020 and 2021, 2022, 2023 Compared to Previous 8 years Daily Mean.



Rate of spill reducing, average number of gulls per week decreased to 81 per day

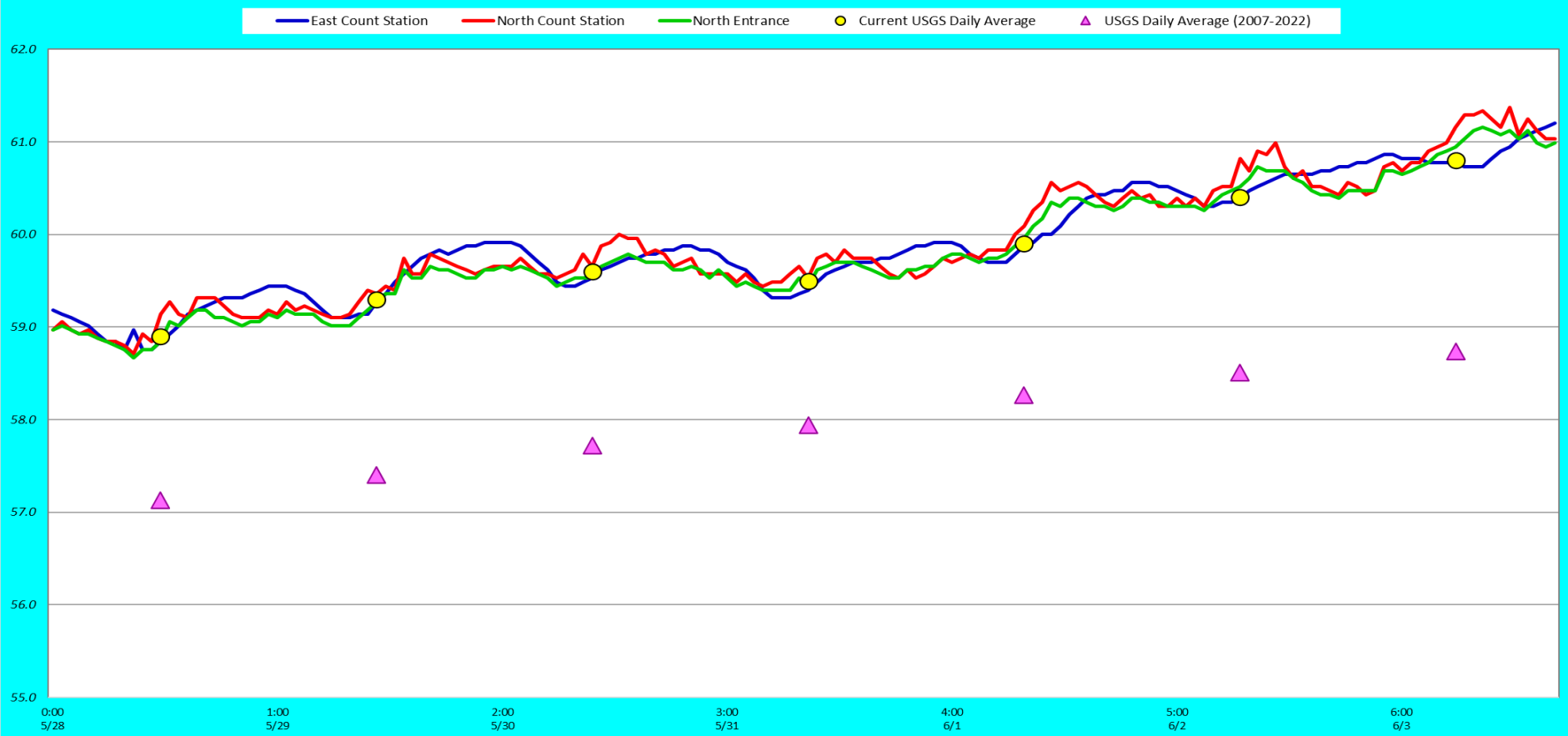
### Avian Count at TDA, 5/28 to 6/3/2023



Date of Count, Alternating AM/PM Daily

Vertical line on the left side of the page.

### Adult Fish Ladders-River Temperatures



Secchi:		USGS F°
3.0	Sun	58.9
3.0	Mon	59.3
3.0	Tue	59.6
3.5	Wed	59.5
3.0	Thurs	59.9
3.0	Fri	60.4
3.0	Sat	60.8
3.1	AVG	59.8

## 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
5/28	1.3	11.4	1.7	8.9	11.4	11.4	14.7	1.7	9.3	9.4	0.2	1.5	11.3	8.9
	1.3	11.3	1.5	10.2	11.7	11.7	15.0	1.4	10.6	10.6	0.5	1.5	11.5	9.0
5/29	1.3	11.4	1.6	10.0	11.1	11.1	14.8	1.6	10.1	10.1	0.4	1.4	11.8	9.1
	1.3	11.4	1.6	10.1	11.3	11.2	15.0	1.5	10.1	10.2	0.4	1.3	11.6	8.9
5/30	1.3	11.5	1.6	9.8	11.4	11.5	14.7	1.6	10.0	10.0	0.1	1.4	11.5	8.6
	1.3	11.4	1.4	10.7	11.6	11.6	15.1	1.4	10.4	10.4	0.5	1.4	11.5	8.5
5/31	1.3	11.5	1.5	10.3	10.0	9.9	14.7	1.6	10.3	10.3	0.1	1.3	12.0	9.0
	1.2	11.5	1.7	9.8	10.0	10.0	14.3	1.6	10.2	10.2	-0.3	1.4	11.6	8.6
6/1	1.4	11.0	1.6	9.6	10.7	10.8	14.1	1.6	10.4	10.4	-0.6	1.4	12.0	8.7
	1.3	10.3	1.6	9.7	10.8	10.8	14.1	1.6	10.4	10.4	-0.6	1.4	10.3	10.3
6/2	1.3	11.0	1.5	9.3	11.7	11.9	13.7	1.5	10.4	10.4	-0.9	1.5	10.2	9.8
	1.3	10.9	1.4	9.3	11.7	11.9	13.8	1.5	10.4	10.4	-0.9	1.4	10.4	9.9
6/3	1.0	10.9	1.4	9.1	11.9	12.1	13.5	1.6	10.1	10.2	-1.1	1.3	10.6	10.3
	1.3	10.9	1.4	9.2	12.1	12.3	13.7	1.5	10.4	10.4	-0.9	1.4	10.5	10.0
<b>AVG:</b>	<b>1.3</b>	<b>11.2</b>	<b>1.5</b>	<b>9.7</b>	<b>11.2</b>	<b>11.3</b>	<b>14.4</b>	<b>1.5</b>	<b>10.2</b>	<b>10.2</b>	<b>-0.2</b>	<b>1.4</b>	<b>11.2</b>	<b>9.3</b>

*Fishways inspected twice daily*



Falconer at left preparing bird for flight on about 12 gulls foraging near ITS intake



