

The Dalles Dam Fishway Status Report

5/28/23

Inspection Period 05/21-05/27, 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: 58.2 °F
			Comments: flow-turbidity increase		Weekly Ave. Secchi: 2.7

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	11.9	
Entrance Differential	0	1.0' - 2.0'	Average for the week	1.4	
N2		Closed			
PUD Intake differential	0	≤ 0.5'			

EAST FISHWAY

Exit differential	0	≤ 0.5'			
Removable weirs 154-157	5	Per forebay	Problem with 155 lift sequence. Maintenance trouble shooting		
Weir 158-159 differential	0	1.1' ± 0.1'			
Count station differential	1	≤ 0.3'	raked pickets		
153 Weir crest depth	0	1' ± 0.1'			
Junction pool weir JP6	0	> 7.0'	Weekly average	18.3	
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	11.3	
Entrance weir E3	0	depth (≥ 8')	Weekly average	11.3	
Collection channel velocity	0	1.5 - 4 fps	1.94 fps 5/24/23		
Transportation channel velocity	0	1.5 - 4 fps	3.64 fps 5/24/23		
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	Entrance	
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	10.3	
Entrance weir W3	0	No criteria	Weekly average	4.5	
South entrance differential	0	1.0' - 2.0'	Weekly average	1.4	
Entrance weir S1	0	depth (≥ 8')	Weekly average	12.7	
Entrance weir S2	0	depth (≥ 8')	Weekly average	10.9	

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 yearlings. No mortality. 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
MU16 OOS 05/22/2023 0630 – 06/29/2023 1700, 6 YR Overhaul
MU15 OOS 05/22/2023 0630 – 06/01/2023 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 5/5/2023
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.

Predators

100-20 foraging gulls in tailwater/FB/PH1 count zones. Cormorants persisting. ~27 nests counted 5/25.
Planning removal of bass/walleye/catfish from all dewaterings for gut sample analysis. Waiting on WDFW permit process.
Falconry abatement at 5 weeks, undertaking mock gull takes in afternoons to some success.

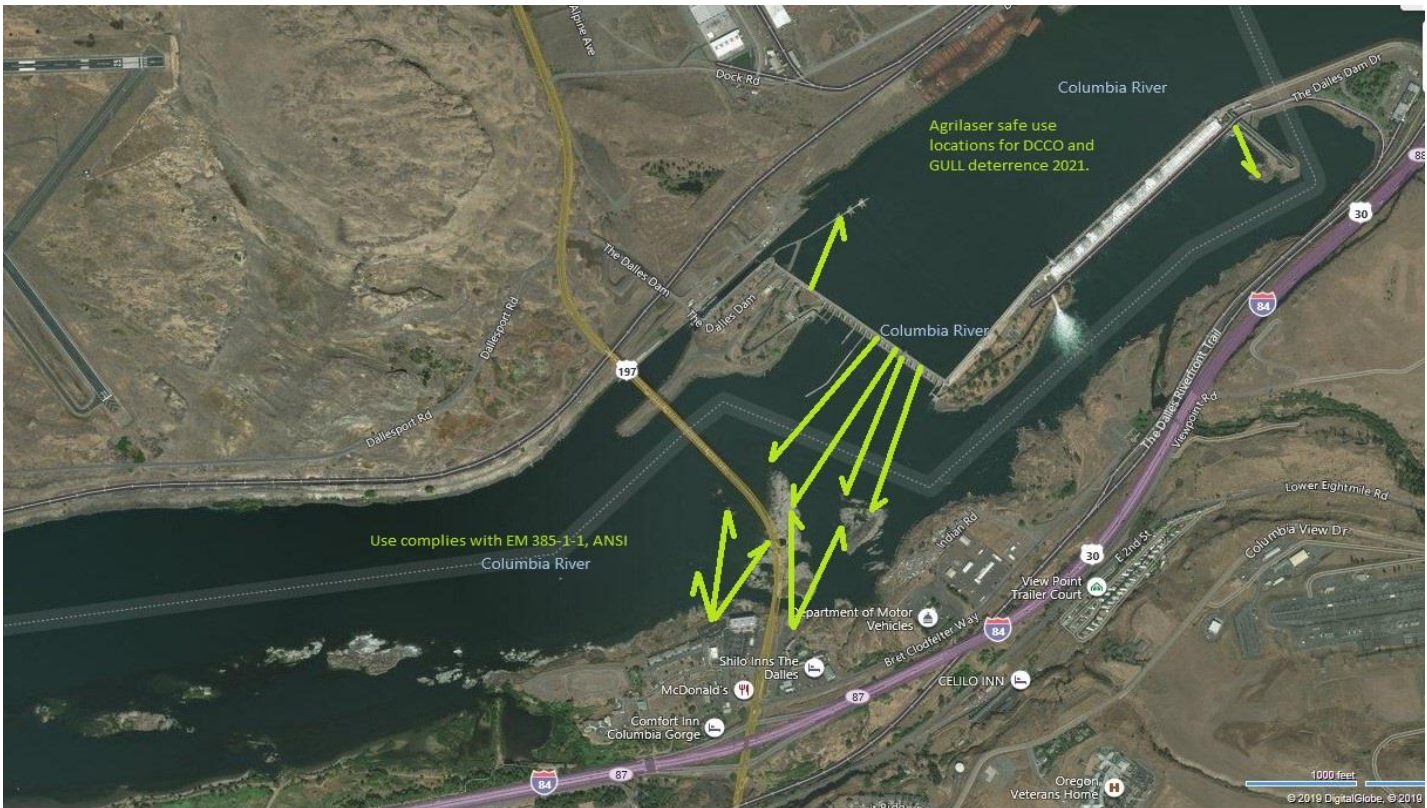
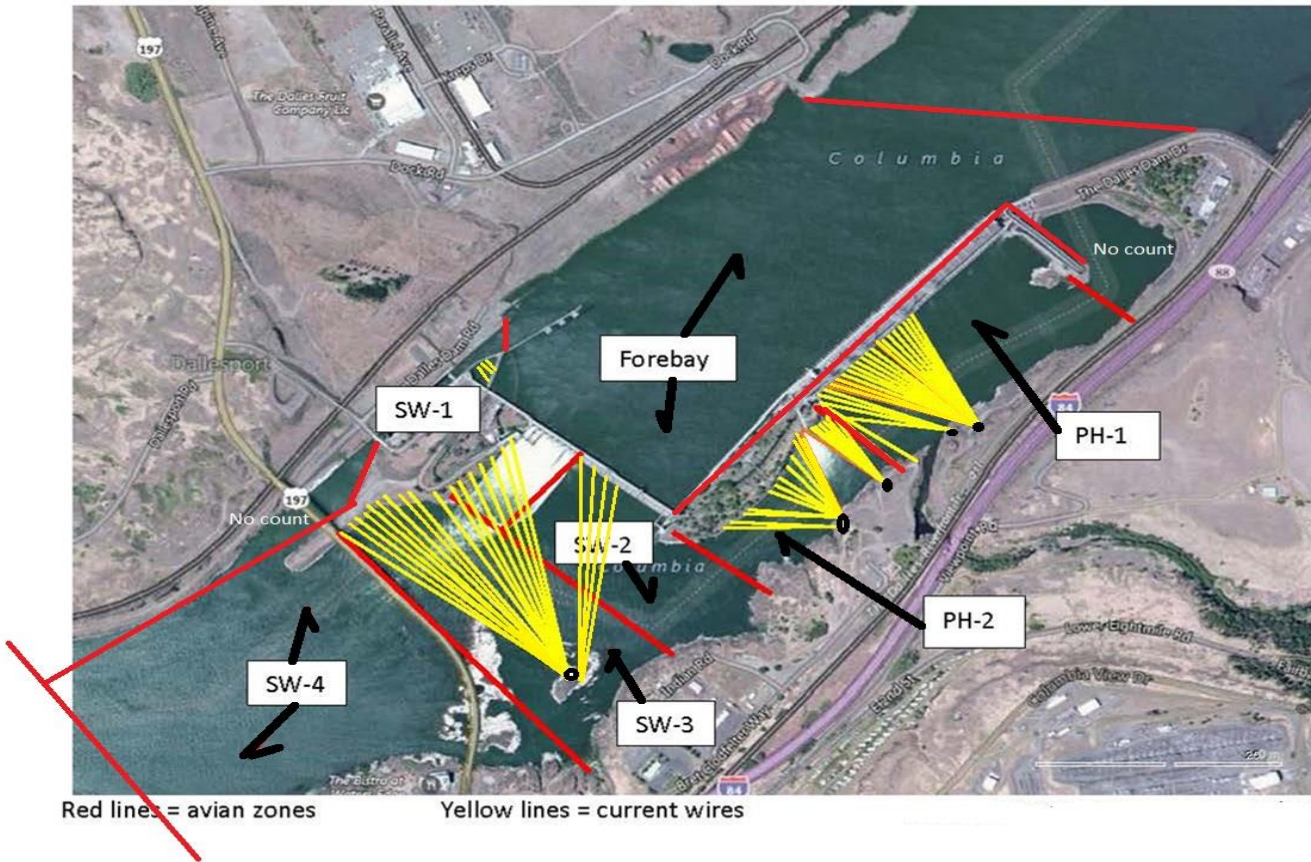
Research/Construction/Contractors

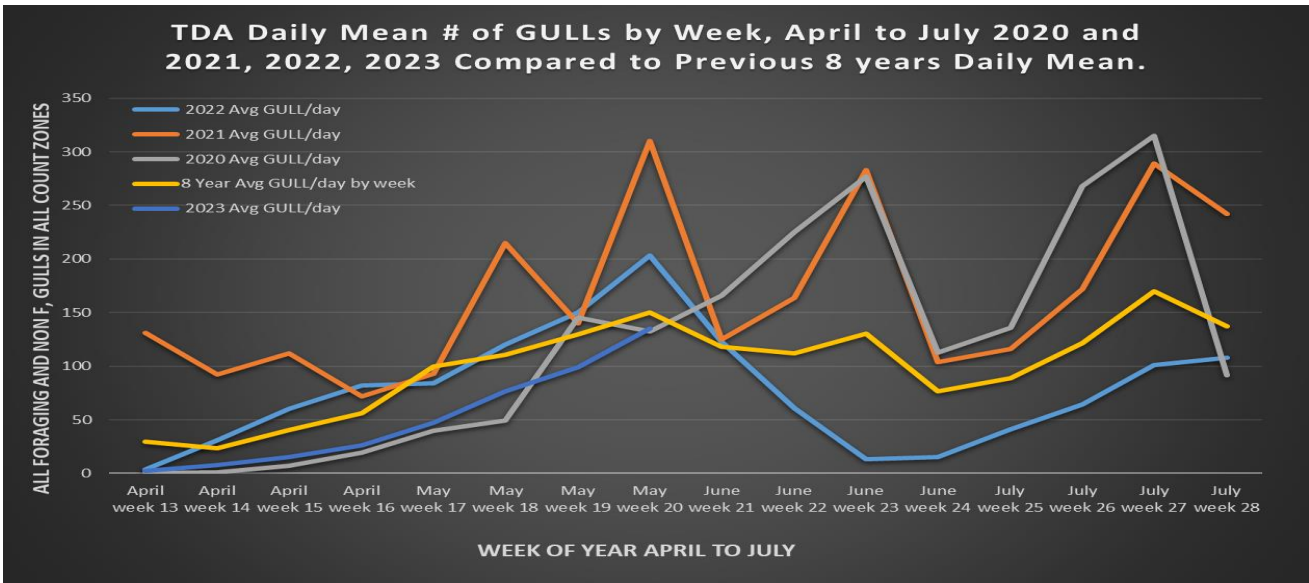
WDFW dam anglers making periodic visits. Catch rates continue low with high turbid flows.
USGS river temperatures link
4 Peaks fish counters 16hr/7 day/wk started Apr 1.
Supporting lamprey improvements PDT. Two of 4 exit weir modified with lamprey orifice, other 2 next winter.
ODFW conducting monthly fishway inspections.
PTAGIS fishladder data collection at count stations continues

Operations

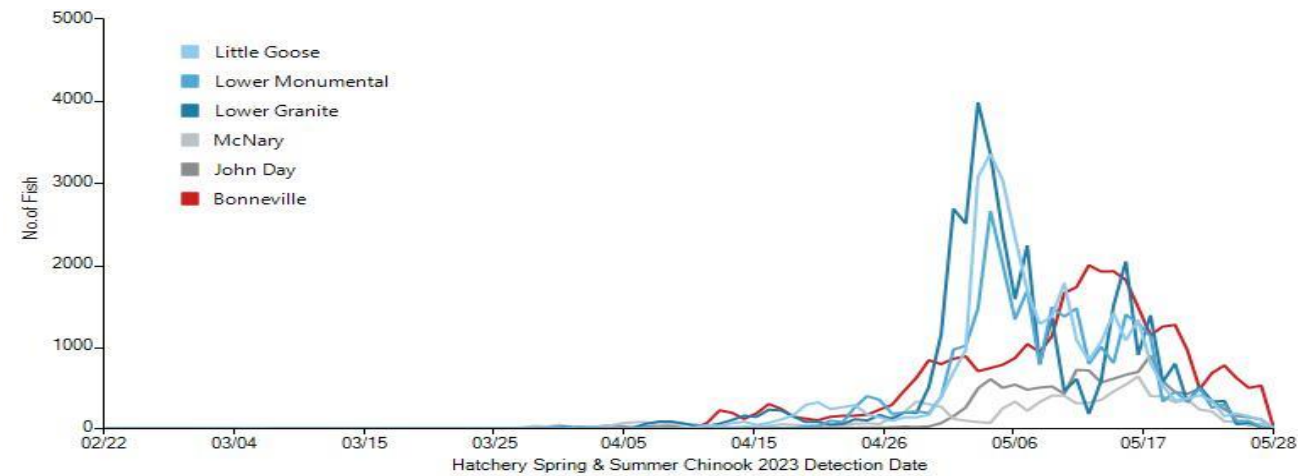
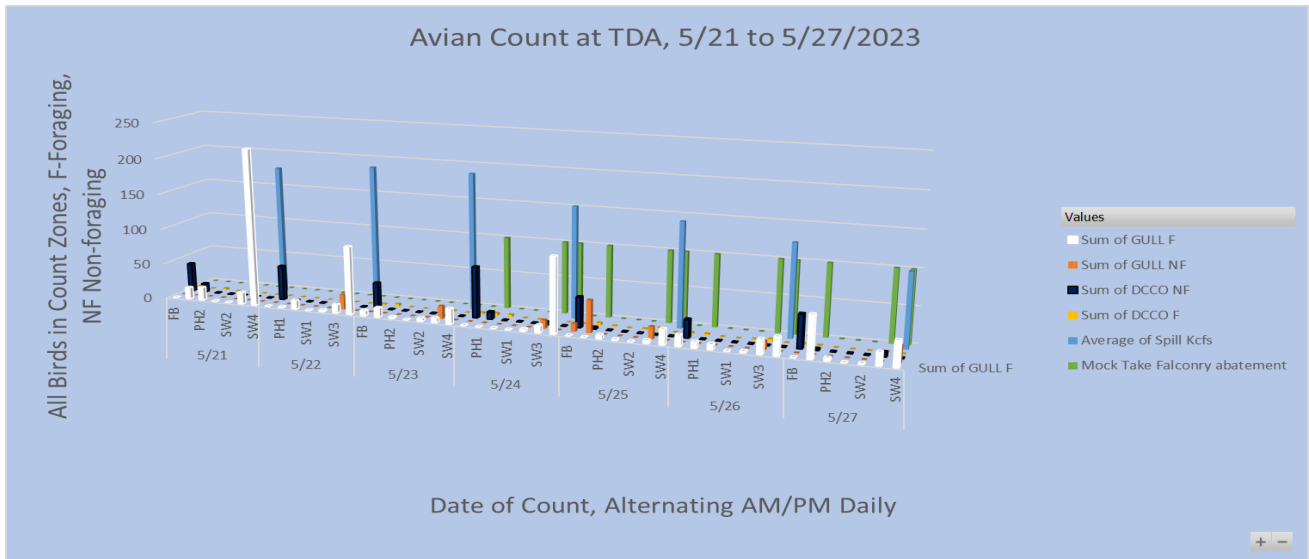
Sluice gates 1-1, 1-2, 1-3, 8-1, 8-3, 18-2 open
Gatewells contain small numbers of chinook yearlings, no mortality.
Approved by: Ron Twiner, Operation Project Manager, The Dalles Dam

Bird Count Zones, Avian Lines and Laser Deterrent Sites



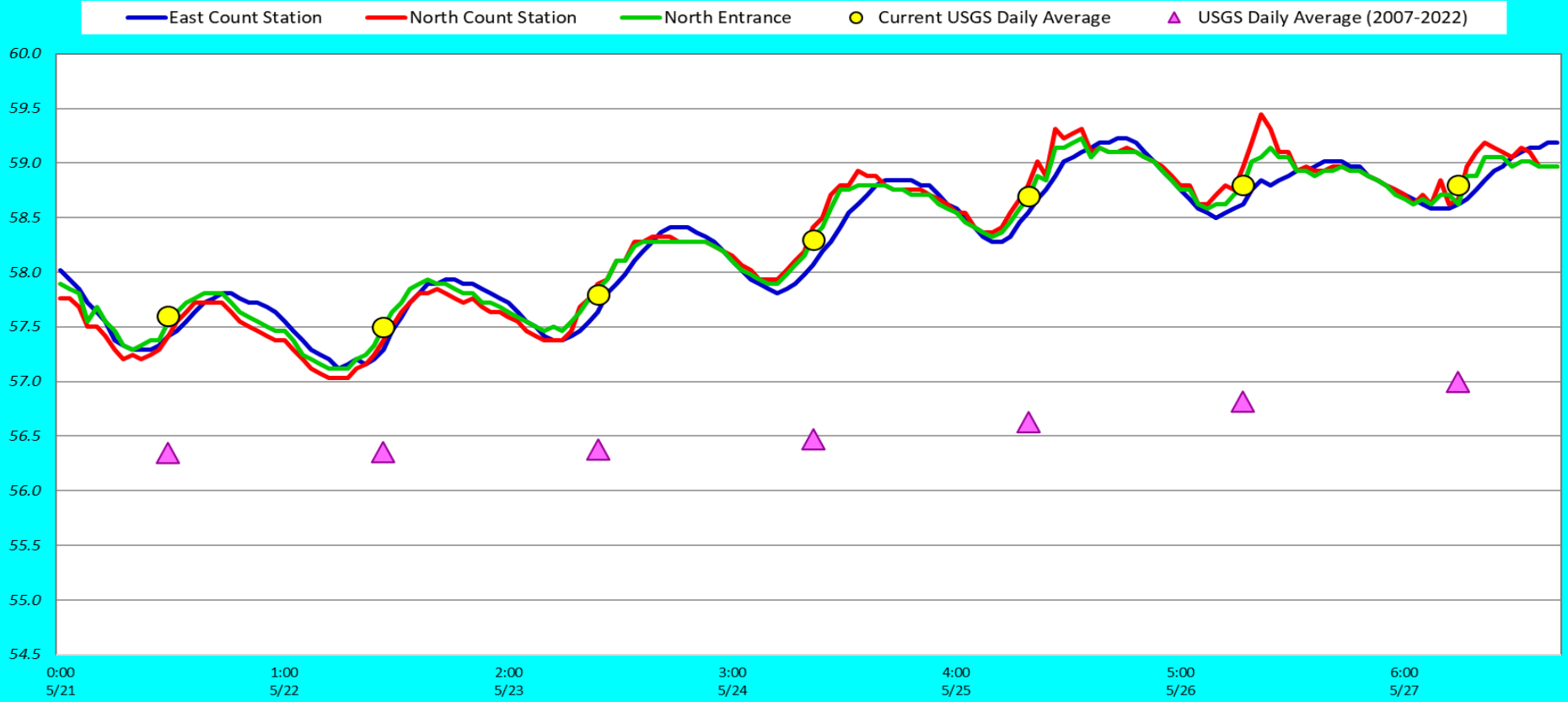


Rate of spill reducing, average number of gulls per week increased to 135 per day



PIT tag detections of spring chinook reduced significantly.

Adult Fish Ladders-River Temperatures



Secchi:		USGS F°
1.5	Sun	57.6
2.5	Mon	57.5
3.0	Tue	57.8
3.0	Wed	58.3
3.0	Thurs	58.7
3.0	Fri	58.8
3.0	Sat	58.8
2.7	AVG	58.2

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
5/21	1.4	12.1	1.5	4.4	9.6	9.6	20.4	1.4	10.7	10.8	6.6	1.4	14.1	14.2
	1.5	12.0	1.5	4.4	9.5	9.6	20.4	1.4	10.6	10.7	10.7	1.2	14.8	10.8
5/22	1.3	11.9	1.4	4.2	10.3	10.5	20.2	1.3	10.9	11.0	6.7	1.1	13.5	9.4
	1.4	12.2	1.4	3.4	11.1	11.3	19.4	1.4	10.4	10.5	6.2	1.1	15.3	10.6
5/23	1.4	12.3	1.5	3.1	10.6	11.1	19.0	1.5	9.9	10.1	5.3	1.6	12.6	11.4
	1.4	12.1	1.3	3.4	10.8	11.2	19.4	1.5	10.3	10.4	5.6	1.3	12.9	12.8
5/24	1.4	12.2	1.6	2.7	10.9	11.0	18.7	1.7	9.7	9.9	4.8	1.4	12.4	11.6
	1.3	12.3	1.7	2.6	11.0	11.2	18.6	1.6	9.7	9.9	4.8	1.5	12.5	11.6
5/25	1.3	12.0	1.6	3.0	10.7	11.1	18.0	1.7	9.5	9.6	4.1	1.5	11.8	11.0
	1.3	11.9	1.5	2.9	11.0	11.5	17.9	1.6	9.5	9.6	4.0	1.5	12.4	11.1
5/26	1.3	11.5	1.5	0.7	14.4	14.4	16.1	1.5	10.4	10.4	1.4	1.4	11.5	9.8
	1.4	11.3	1.3	1.7	13.7	13.7	17.0	1.4	11.1	11.1	2.1	1.5	11.4	9.6
5/27	1.3	11.3	1.5	-0.8	14.7	15.3	14.6	1.5	10.2	10.2	0.1	1.4	11.3	9.1
	1.3	11.4	1.4	10.2	10.4	10.1	16.0	1.5	10.4	10.5	1.2	1.3	11.9	9.6
AVG:	1.4	11.9	1.5	3.3	11.3	11.5	18.3	1.5	10.2	10.3	4.5	1.4	12.7	10.9

Fishways inspected twice daily