

The Dalles Dam Fishway Status Report

08/16/2020

Inspection Period: 8/9-8/15

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: 21		Temperature: 70.1 °F
			Comments: fishways functional		Weekly Average 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 differential	0	1.0' - 2.0'	1.2
Entrance weir N1	0	depth (≥ 8')	9.9
Entrance weir N2	0	Closed	
PUD Intake differential	2	≤ 0.5'	Weeds clogging intake racks.

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'	
153 Weir crest depth	0	1.3' ± 0.1'	
Junction pool weir JP6	0	> 7.0'	Average for week = 10.1
East entrance differential	0	1.0' - 2.0'	Average for week = 1.5
Entrance weir E1	0	No criteria	Average for week = 6.0
Entrance weir E2	0	depth (≥ 8')	Average for week = 12.1
Entrance weir E3	0	depth (≥ 8')	Average for week = 12.1
Collection channel velocity	0	1.5 - 4 fps	2.74 fps, 8/7/2020 Range: 3.44 fps MU-7 to 2.15 fps MU-18
Transportation channel velocity	0	1.5 - 4 fps	2.12 fps, 8/9/2020
North channel velocity	0	1.5 - 4 fps	2.6 fps, 8/8/2020
South channel velocity	0	1.5 - 4 fps	2.22 fps, 8/8/2020
West entrance differential	0	1.0' - 2.0'	Average for week = 1.5
Entrance weir W1	0	depth (≥ 8')	Average for week = 10.3
Entrance weir W2	0	depth (≥ 8')	Average for week = 10.3
Entrance weir W3	0	No criteria	
South entrance differential	0	1.0' - 2.0'	Average for week = 1.4
Entrance weir S1	0	depth (≥ 8')	Average for week = 8.3
Entrance weir S2	0	depth (≥ 8')	Average for week = 8.3

JUVENILE PASSAGE

Sluiceway operation	0	Units 1, 7, 18	MU8 OOS
Turbine trashrack drawdown	0	<1.5', biwkly	7/29/2020 All in criteria.
Spill volume/pattern	0	1 to 8	Spill 40% of total flow.
Turbine Unit Priority	7	per FPP	Mechanical issues force units OOS.
Gatewells	0	Weekly	8/8/2020, fishcheck. Some shad adults present. No Salmon

OTHER ISSUES:

Fishway Operations

North and east fish ladders in full operation.

Spillway open 40% for juvenile passage with Fish Passage Plan pattern

Slucieway open with 6 gates.

Live shad and sub/yearling salmon observed in many gatewells

Unit Outages

Line 1, MU1,2, FU1&2 limited to 188MVA for T1 replacement; 1/28/2021

T3 MU5, MU6 FU1 & FU2 limited for fish unit breaker bus temperature testing

T10 (MU19 & 20) forced out through 10/28/2021 due to acetylene levels

MU8 out through 8/13/2020 for Overhaul

T7 out through 9/24/2020 GSU Replacement & Gnd. Switch Repairs

Maintenance

PUD rake out of service due to power track damage. Planning repair. PUD intake can be raked with mobile crane if needed.

Calibration check; 8/8/2020 All entrances in calibration and within criteria.

Five of 6 east fishway collection channel dewatering pumps removed for repair/rehab. On hold due to lack of funding.

East fishway automation replacement underway. PLC box assembly completed. Installation delayed do to lack of staff.

Spillway assessment (MRER); No FY20 funding. Spillgate 9 trunnion pin included.

Predators

USDA hazing concluded 7/31. Refer to avian graph tab for bird numbers.

Green laser use for piscivorous bird hazing testing on hold. Addressing potential safety concerns.

Research/Construction/Contractors

PSMFC concluded juvenile sampling at PUD 7/31. Planning new sample tank construction this winter.

Four Peaks fish counting ongoing.

CRITFC continues lamprey trapping at east count station, lamprey numbers slowed w/ 13 captured for the week w/ 461 total YTD

PITAGS north and east fishladder data collection at count stations continues.

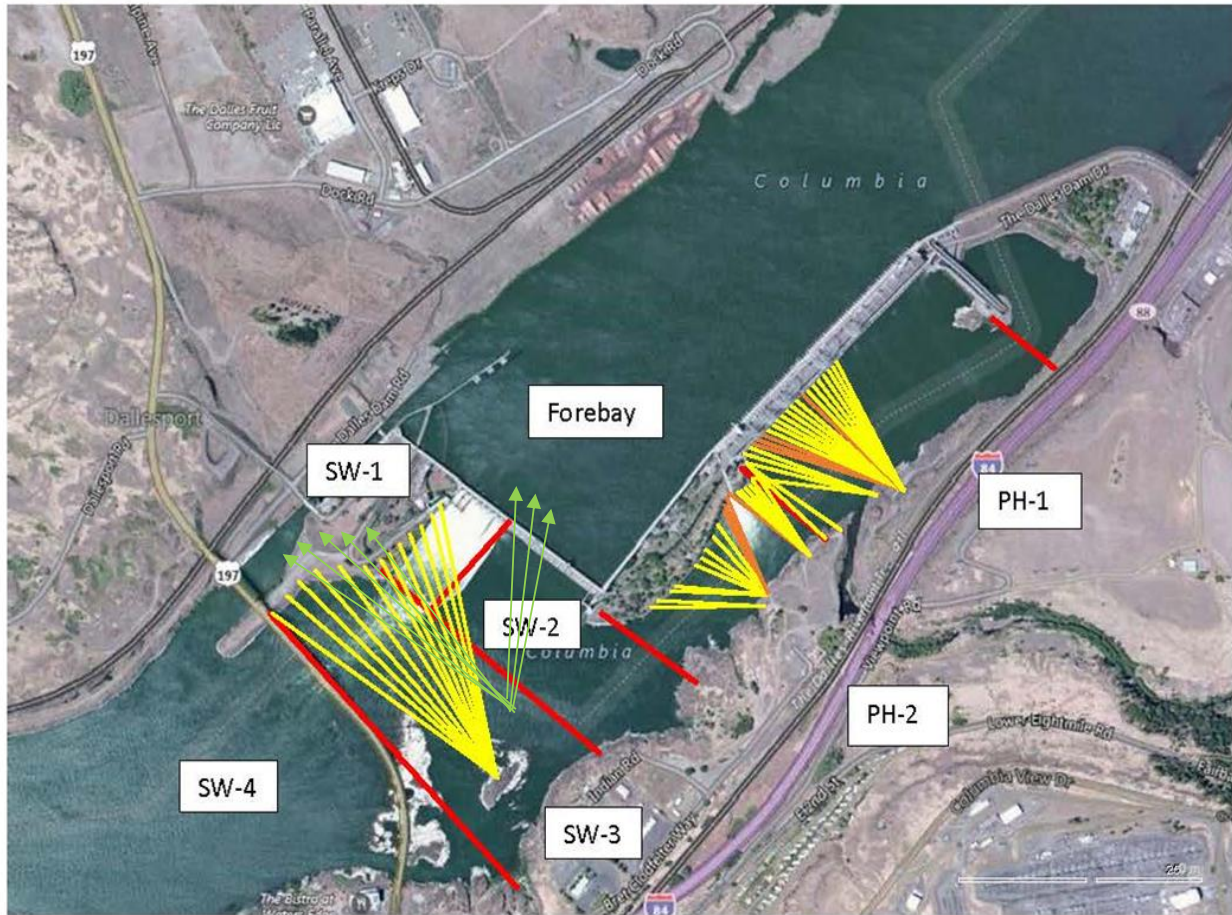
Pikeminnow dam angling 24 NPM this week-921 NPM YTD. **All invasive bass/walleye by-catch release continues per states gamefish requirements.**

Fish unit breaker replacement installed and in operation. Final calculations continue.

Fish unit rehab - Phase 1A. Planning operation scenario with AWS backup water supply during construction. Effort underway to finish report this year.

Approved by: Mike Colesar, Operation Project Manager, The Dalles Dam

Avian Lines and laser deterrent zones



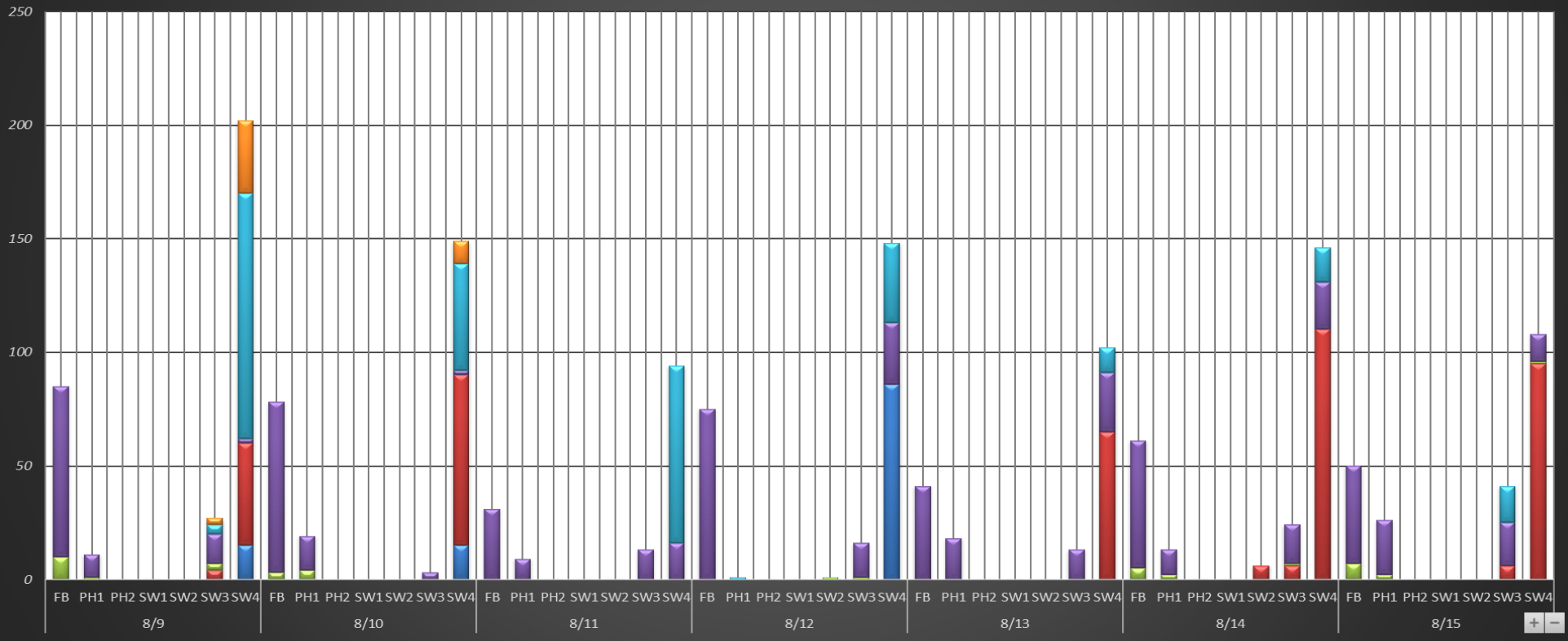
Red lines = avian zones

Yellow lines = current wires

Orange lines = down or missing wires

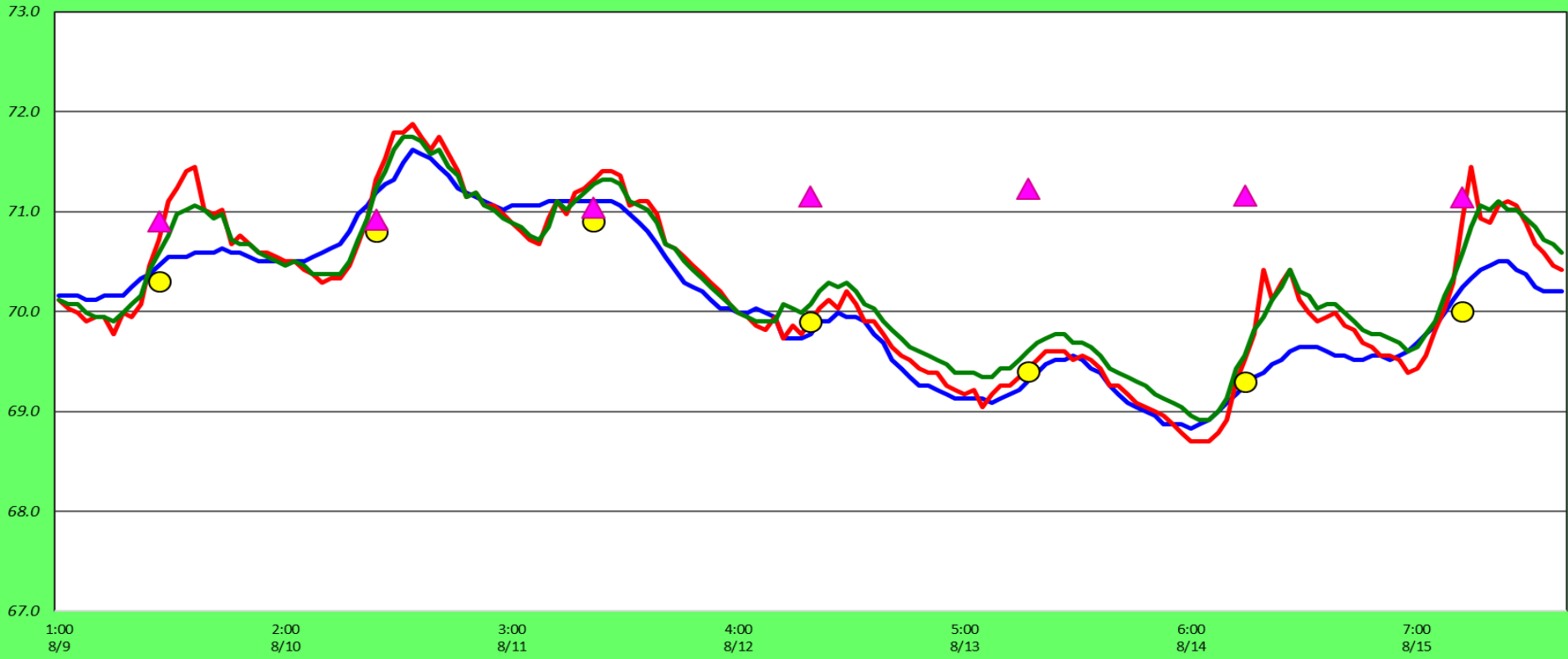
Avian Activity by Zone

■ Sum of GULL F
 ■ Sum of GULL NF
 ■ Sum of DCCO F
 ■ Sum of DCCO NF
 ■ Sum of AWPE NF
 ■ Sum of AWPE F



Adult Fish Ladders-River Temperatures

— East Count Station — North Count Station — North Entrance ● Current USGS daily tailwater average ▲ USGS daily tailwater average (2007-2019)



Secchi:		°F
5.0	Sun	70.3
5.0	Mon	70.8
5.0	Tue	70.9
5.0	Wed	69.9
5.0	Thurs	69.4
5.0	Fri	69.3
5.0	Sat	70.0
5.0	AVG	70.1

USGS August

The Dalles Dam Daily Readings and Averages for

Temperatures, Secchi, Entrances, and Spill

SCADA INSPECTION

out of criteria

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
8/9			1.4	4.8	12.3	12.4	10.4	1.6	10.1	10.1	-2.9	1.5	8.0	8.1
	1.2	9.7	1.3	3.5	12.5	12.6	9.7	1.4	10.3	10.3	-3.4	1.6	8.2	8.2
	1.3	9.1	1.5	2.0	12.0	12.1	9.4	1.3	10.2	10.2	-3.8	1.4	8.4	8.4
8/10			1.8	2.0	12.0	12.0	10.6	1.7	10.0	10.0	-3.0	1.7	8.2	8.3
	1.2	9.8	1.6	4.1	12.0	12.0	10.3	1.3	10.9	10.9	-2.8	1.6	8.2	8.3
	1.3	9.7	1.4	7.6	12.5	12.6	11.9	1.7	10.5	10.5	-1.1	1.6	8.4	8.3
8/11			1.4	7.7	12.0	12.0	10.4	1.4	10.6	10.6	-2.8	1.5	8.3	8.3
	1.2	9.6	1.6	7.8	12.1	12.1	10.7	1.4	10.8	10.8	-2.4	1.4	8.5	8.5
	1.2	11.8	1.5	7.8	12.1	12.1	10.9	1.4	10.8	10.8	-2.4	1.5	8.5	8.5
8/12			1.4	7.6	12.0	12.0	9.8	1.4	10.6	10.6	-3.2	1.5	8.4	8.4
	1.2	9.7	1.4	6.0	12.0	12.0	9.4	1.4	10.3	10.3	-3.6	1.5	8.3	8.3
	1.2	9.7	1.4	12.0	12.0	11.2	9.6	1.4	10.2	10.2	-3.5	1.4	8.4	8.4
8/13			1.5	6.1	12.1	12.1	9.7	1.5	10.1	10.1	-3.2	1.4	8.4	8.4
	1.2	9.8	1.4	6.0	12.0	12.0	9.6	1.5	10.2	10.2	-3.5	1.5	8.3	8.3
	1.2	10.9	1.5	6.0	12.0	12.0	9.8	1.4	10.2	10.2	-3.3	1.5	8.3	8.3
8/14			1.4	6.0	12.0	12.0	9.8	1.4	10.2	10.2	-3.2	1.5	8.4	8.4
	1.2	9.8	1.5	5.9	12.0	12.0	9.8	1.4	10.2	10.2	-3.3	1.4	8.3	8.3
	1.2	9.8	1.2	6.0	12.1	12.5	9.6	1.4	10.2	10.2		0.5	8.4	8.3
8/15			1.7	4.5	12.0	12.0	10.2	1.6	10.3	10.3		1.4	8.4	8.3
	1.2	9.8	1.6	5.9	11.9	11.9	10.1	1.5	10.2	10.2		1.5	8.5	8.5
	1.2	9.8	1.6	6.1	12.0	12.0	10.9	1.4	10.3	10.3		1.5	8.5	8.5
AVG:	1.2	9.9	1.5	6.0	12.1	12.1	10.1	1.5	10.3	10.3	-3.0	1.4	8.3	8.3

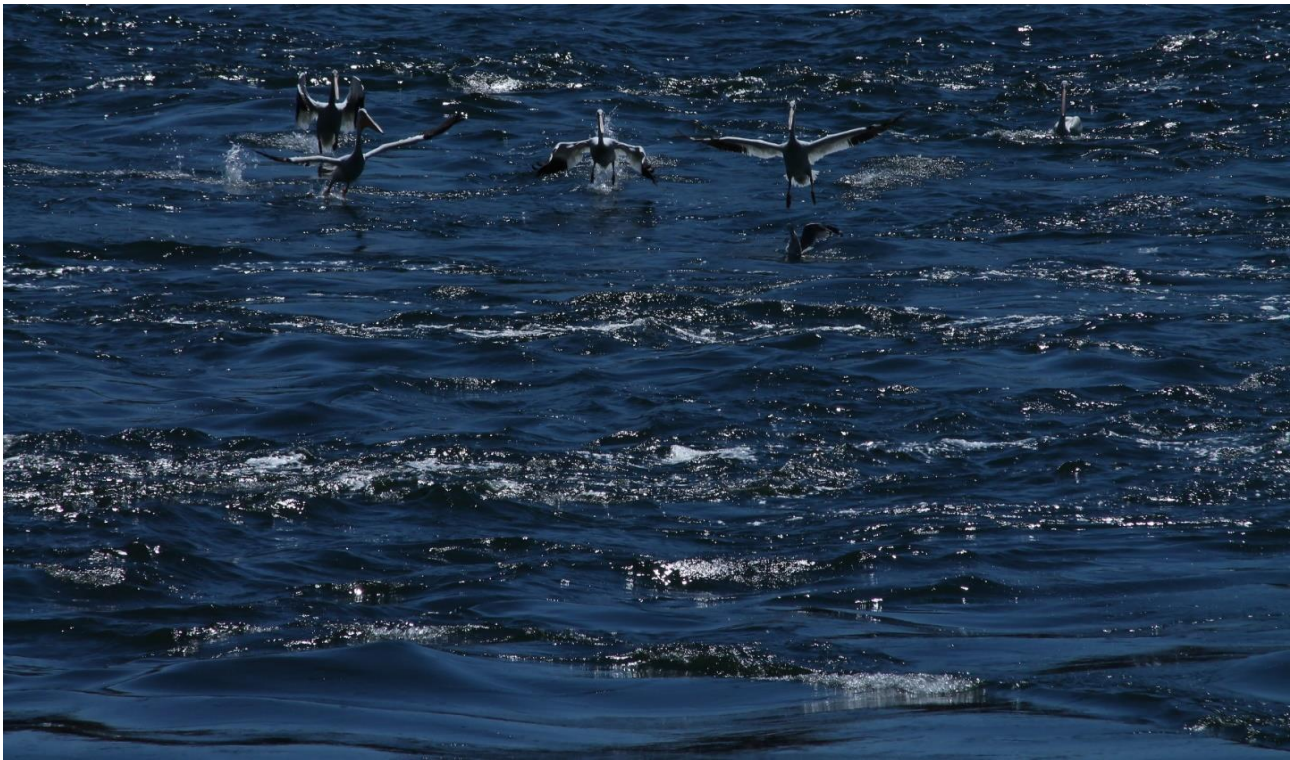
Fishways are inspected once daily plus one SCADA inspection.

Recreational boater picking up shad morts hazing pelicans from foraging areas, 8/11/2020



Pelicans attack a gull as kleptoparasites 8/13/2020 SW4.





Pelicans hazed off foraging sites to loafing site. 8/11/2020 SW4.



