

The Dalles Dam Fishway Status Report

6/19/22

Inspection Period 6/12-6/18 2022

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: 57.0 °F
			Comments: W155 failure RCC restricted FB		Weekly Ave. Secchi: 3.6

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')		1.3	
Entrance Differential	0	1.0' - 2.0'		11.7	Erroneous data from new PLC sensor. Engineering aware.
N2	0	Closed			
PUD Intake differential	0	≤ 0.5'			

EAST FISHWAY

Exit differential	0	≤ 0.5'			
Removable weirs 154-157	0	Per forebay	Note; 155 weir hoist failed. Forebay restriction minimum 157' applied.		
Weir 158-159 differential	0	1.1' ± 0.1'			
Count station differential	9	≤ 0.3'	Count station pickets plugging up with weeds requiring frequent raking to restore differential.		
153 Weir crest depth	0	1.3' ± 0.1'	Some fluctuations in weir 153 height due to significant weed debris buildup on east pickets.		
Junction pool weir JP6	0	> 7.0'	Weekly average	19.8	JP2 gate hanging into upper pool waters due to tailwater.
East entrance differential	0	1.0' - 2.0'	Weekly average	1.5	
Entrance weir E1	0	No criteria	Weekly average	7.1	Requires regular manual corrections due to high tailwater.
Entrance weir E2	2	depth (≥ 8')	Weekly average	11.6	Requires regular manual corrections due to high tailwater.
Entrance weir E3	2	depth (≥ 8')	Weekly average	11.6	Requires regular manual corrections due to high tailwater.
Collection channel velocity	0	1.5 - 4 fps	west 2.39-east 1.78 fps, AVE 1.69fps 6/10		
Transportation channel velocity	0	1.5 - 4 fps	3.87 fps east 6/20/2022		
North channel velocity	0	1.5 - 4 fps	2.0 fps 6/20		
South channel velocity	0	1.5 - 4 fps	3.10 fps 6/11		
West entrance differential	0	1.0' - 2.0'	Weekly average	1.5	
Entrance weir W1	0	depth (≥ 8')	Weekly average	9.0	
Entrance weir W2	0	depth (≥ 8')	Weekly average	9.3	
Entrance weir W3	0	No criteria	Weekly average	6.3	
South entrance differential	1	1.0' - 2.0'	Weekly average	1.4	Automation unable to manage due to high tailwater and spill slosh
Entrance weir S1	5	depth (≥ 8')	Weekly average	9.5	Due to high tail water conditions
Entrance weir S2	5	depth (≥ 8')	Weekly average	8.2	Due to high tail water conditions

JUVENILE BYPASS

Sluiceway operation	0	Units 1, 8, 18			
Turbine trashrack drawdown	0	<1.5', biwklly	5/16/22 0k		
Spill volume/pattern	0	1 to 22	Pattern per FPP according to volume, very high flows led to 60-70 and 80% spill at times.		
Turbine Unit Priority	0	per FPP	Fish Unit flow may be below 2500cfs due to PH hydraulics in high flow.		
Gatewells	0	Weekly	6/18/22, small numbers of adult shad observed. No mortality.		

Current Unit Outages

T10 (MU19 & 20) FOOS through 10/27/2022 due to acetylene levels
MU12 OOS 0001 4/12/2021 – 1700 10/27/2022 fr 6/19/2022
MU6 OOS 5/31/2022 0630-7/21/2022 1700 6 YEAR
MU20 OOS 5/16/2022 0630-6/23/2022 1700 ANNUAL FALL PROTECTION

Maintenance

East fishladder wier 155 hoist failed. Weir in down position. Return to service Jan 2023, depending on funding. Forebay restriction 157.
Permanent oil boom reinstall planned for April was postponed until this winter.
Calibrations on east fishway entrances. E-2 ~6" out of calibration, All in criteria.
Spillway assessment (MRER); Spillgates 1- 9 rehab date estimate 2034. Includes replacement of spillbay 9 trunnion pin repair. Spillway crane first priority
Fish unit rehab Phase 1A awaiting funding.
AWS intake trashrack debris management - funded restart FY22.
Gate JP2 hanging down into the top of the east transportation channel about 3~5' at high tail water. Does not appear to hold up fish.
Scroll case MU6 fish rescue. 1 oversize sturgeon released alive to forebay. 2 juvenile sturgeon released alive to tailwater. 1 juvenile sturgeon mortality.

Predators

Falconry routinely and aggressively pushing gulls from count zones leading to drop in gull and foraging cormorants numbers. Continuing to track changes.
USDA shore hazing daily. Boating curtailed due to high water and low gull numbers. Sky Guardian falconers daily operations focused on one day on two days off.
Planning removal of bass/walleye/catfish from all dewaterings for gut sample analysis. Working on permit. Fish Passage Plan 2022 approved.
Large numbers of pelicans present targeting fallback shad and parasitising cormorants. Gull numbers kept near zero by falconry in all count zones.
High flows deterring avian predators, due to very turbid waters and inundation of resting/feeding areas.

Research/Construction/Contractors

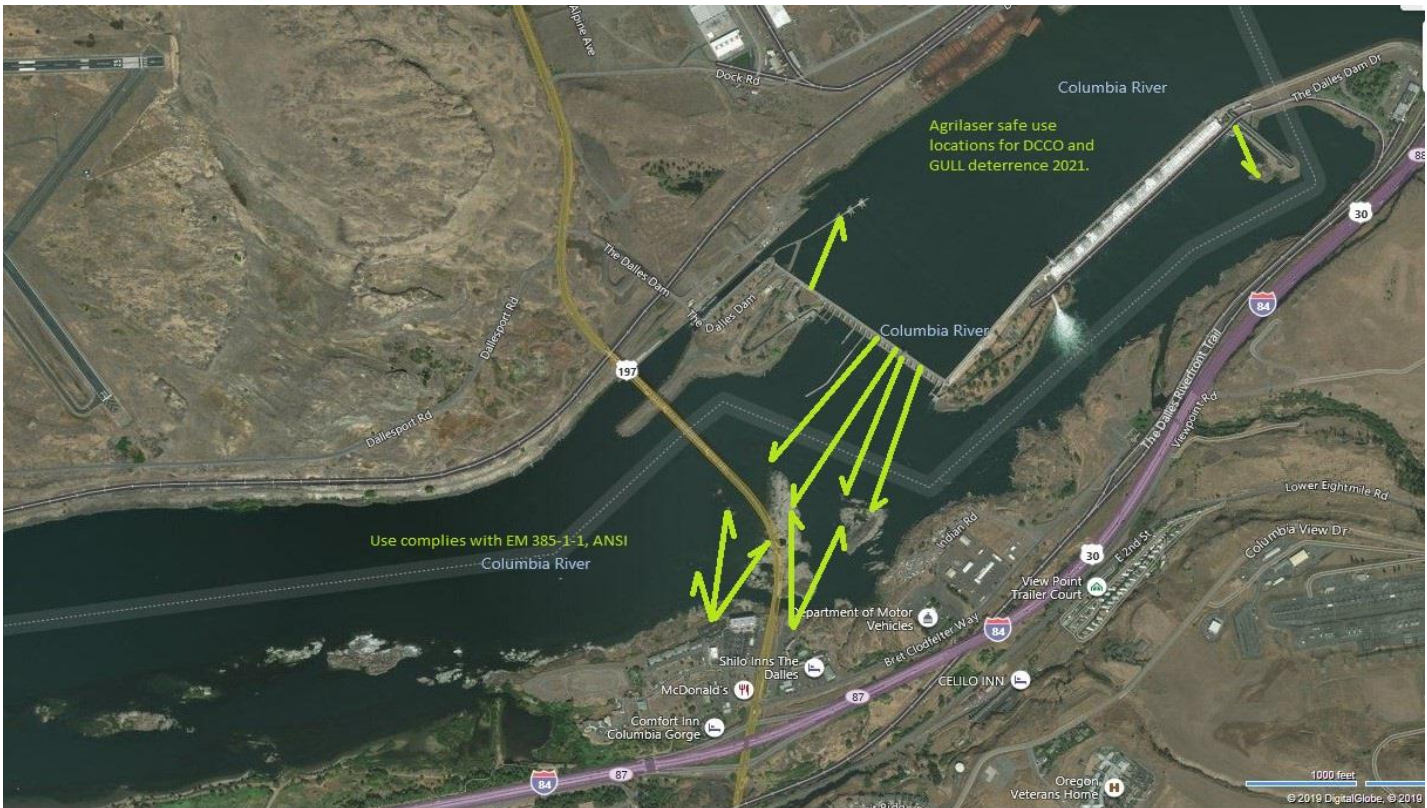
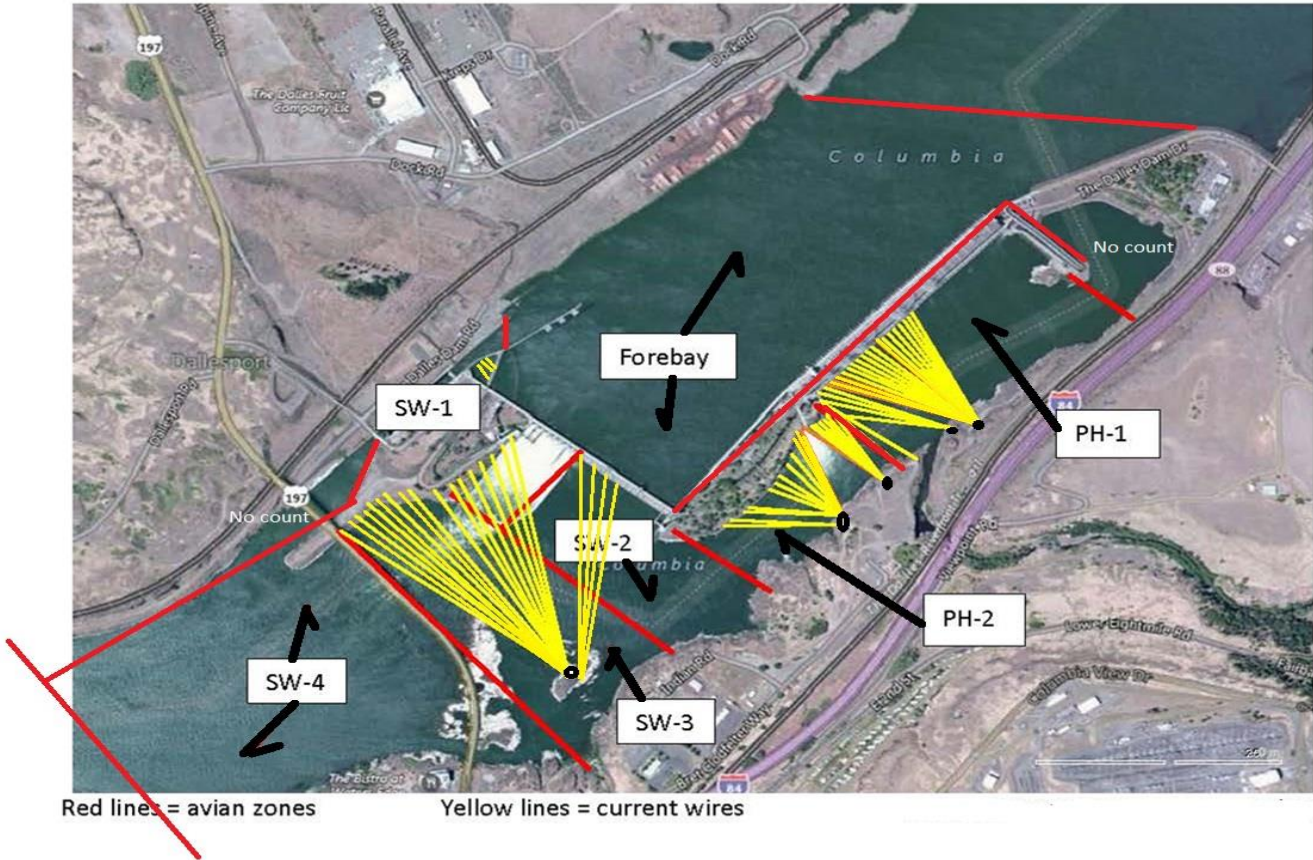
USGS river temperatures link [June°F](#)
4 peaks visual counting resumed April 1
Planned improvements to tribal lamprey trapping equipment. Reduced to bare minimum due to funding constraints
Pikeminnow removal program reporting period 5/30-6/5 1/week 33/YTD
Fish Accords Lamprey Passage plan ongoing at 60% DDR junction pool LPS. Investigating mods for entrance and exit wiers.
PTAGIS fishladder data collection at in service count station continues.

Operations

Ice Trash sluiceway endgate Open. Sluiceways open per FPP. Modifications to gate openings made due to forced unit outages.
East and North fishways in full service

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

Bird Count Zones, Avian Lines and Laser Deterrent Sites

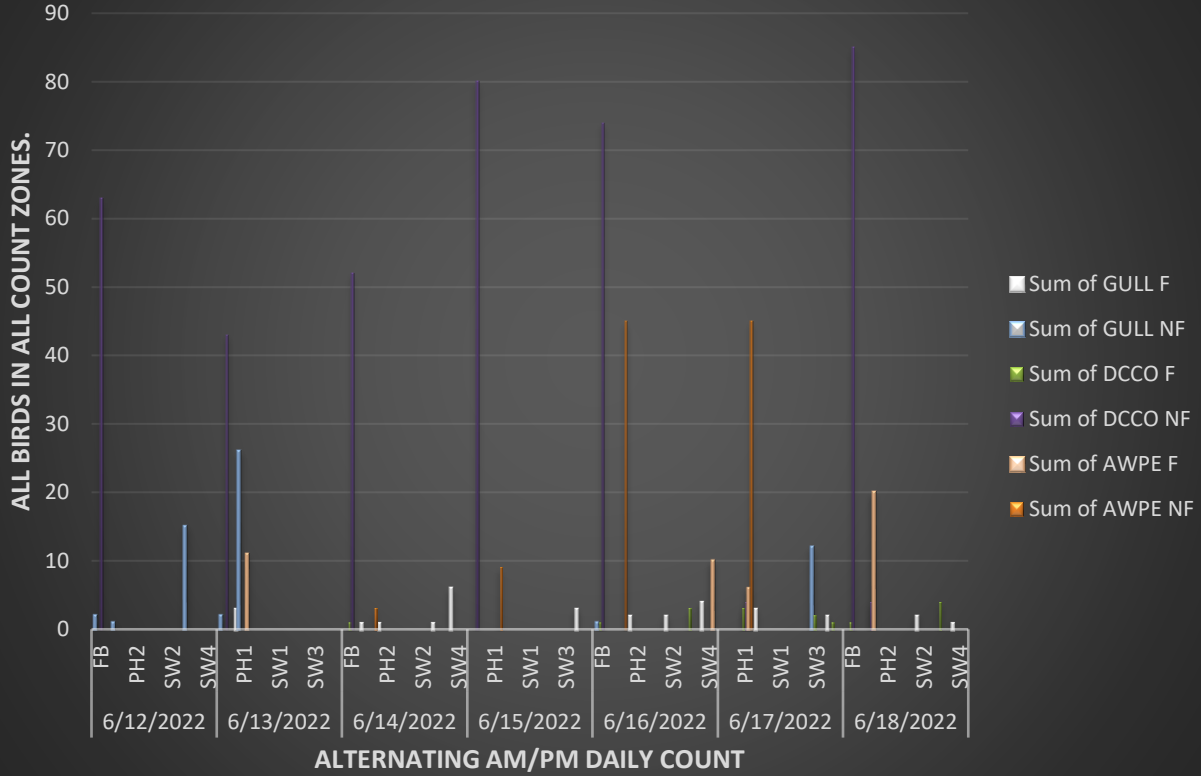


F=foraging, NF=non-fc

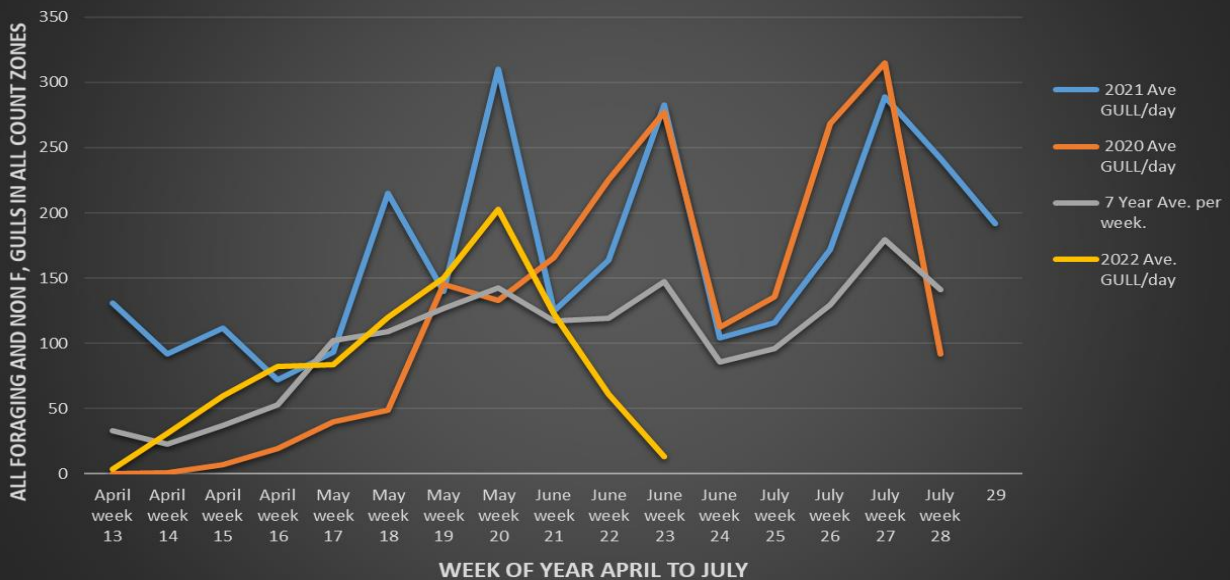
Date	Observer	Time	ZONE	GULL F	GULL NF	DCCO F	DCCO NF	TERN F	TERN NF
6/12	MM	PM	FB	0	2	0	63	0	0
6/12			PH1	0	1	0	0	0	0
6/12			PH2	0	0	0	0	0	0
6/12			SW1	0	0	0	0	0	0
6/12			SW2	0	0	0	0	0	0
6/12			SW3	0	15	0	0	0	0
6/12			SW4	0	0	0	0	0	0
6/13	MM	AM	FB	0	2	0	43	0	0
6/13			PH1	3	26	0	0	0	0
6/13			PH2	0	0	0	0	0	0
6/13			SW1	0	0	0	0	0	0
6/13			SW2	0	0	0	0	0	0
6/13			SW3	0	0	0	0	0	0
6/13			SW4	0	0	0	0	0	0
6/14	BC	PM	FB	0	0	1	52	0	0
6/14			PH1	1	0	0	0	0	0
6/14			PH2	1	0	0	0	0	0
6/14			SW1	0	0	0	0	0	0
6/14			SW2	0	0	0	0	0	0
6/14			SW3	1	0	0	0	0	0
6/14			SW4	6	0	0	0	0	0
6/15	JWR	AM	FB	0	0	0	80	0	0
6/15			PH1	0	0	0	0	0	0
6/15			PH2	0	0	0	0	0	0
6/15			SW1	0	0	0	0	0	0
6/15			SW2	0	0	0	0	0	0
6/15			SW3	0	0	0	0	0	0
6/15			SW4	3	0	0	0	0	0
6/16	JED	PM	FB	0	1	1	74	0	0
6/16			PH1	0	0	0	0	0	0
6/16			PH2	2	0	0	0	0	0
6/16			SW1	0	0	0	0	0	0
6/16			SW2	2	0	0	0	0	0
6/16			SW3	0	0	3	0	0	0
6/16			SW4	4	0	0	0	0	0
6/17	JED	AM	FB	0	0	0	0	0	0
6/17			PH1	0	0	3	4	0	0
6/17			PH2	3	0	0	0	0	0
6/17			SW1	0	0	0	0	0	0
6/17			SW2	0	0	0	0	0	0
6/17			SW3	0	12	2	0	0	0
6/17			SW4	2	0	1	0	0	0
6/18	JED	PM	FB	0	0	1	85	0	0
6/18			PH1	0	0	0	4	0	0
6/18			PH2	0	0	0	0	0	0
6/18			SW1	0	0	0	0	0	0
6/18			SW2	2	0	0	0	0	0
6/18			SW3	0	0	4	0	0	0
6/18			SW4	1	0	0	0	0	0
			FB	0	0	0	0	0	
			PH1	0	0	0	0	0	
			PH2	0	0	0	0	0	

		SW1	0	0	0	0	0	0
		SW2	0	0	0	0	0	0
		SW3	0	0	0	0	0	0
		SW4	0	0	0	0	0	0

The Dalles Avian Counts 6/12-6/18/2022



TDA Daily Mean # of GULLS by Week, April to July 2020 and 2021, 2022 Compared to Previous 7 years Daily Mean.



0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0

Row Labels	Sum of GULL F	Sum of GULL NF	Sum of DCCO F	Sum of DCCO NF	Sum of AWPE F
6/12/2022	0	18	0	63	0
FB	0	2	0	63	0
PH1	0	1	0	0	0
PH2	0	0	0	0	0
SW1	0	0	0	0	0
SW2	0	0	0	0	0
SW3	0	15	0	0	0
SW4	0	0	0	0	0
6/13/2022	3	28	0	43	11
FB	0	2	0	43	0
PH1	3	26	0	0	11
PH2	0	0	0	0	0
SW1	0	0	0	0	0
SW2	0	0	0	0	0
SW3	0	0	0	0	0
SW4	0	0	0	0	0
6/14/2022	9	0	1	52	0
FB	0	0	1	52	0
PH1	1	0	0	0	0
PH2	1	0	0	0	0
SW1	0	0	0	0	0
SW2	0	0	0	0	0
SW3	1	0	0	0	0
SW4	6	0	0	0	0
6/15/2022	3	0	0	80	0
FB	0	0	0	80	0
PH1	0	0	0	0	0
PH2	0	0	0	0	0
SW1	0	0	0	0	0
SW2	0	0	0	0	0
SW3	0	0	0	0	0
SW4	3	0	0	0	0
6/16/2022	8	1	4	74	10
FB	0	1	1	74	0
PH1	0	0	0	0	0
PH2	2	0	0	0	0
SW1	0	0	0	0	0
SW2	2	0	0	0	0
SW3	0	0	3	0	0
SW4	4	0	0	0	10
6/17/2022	5	12	6	4	6
FB	0	0	0	0	0
PH1	0	0	3	4	6
PH2	3	0	0	0	0
SW1	0	0	0	0	0
SW2	0	0	0	0	0
SW3	0	12	2	0	0
SW4	2	0	1	0	0
6/18/2022	3	0	5	89	20
FB	0	0	1	85	0

PH1	0	0	0	4	20
PH2	0	0	0	0	0
SW1	0	0	0	0	0
SW2	2	0	0	0	0
SW3	0	0	4	0	0
SW4	1	0	0	0	0
Grand Total	31	59	16	405	47

Sum of AWPE NF

0

0

0

0

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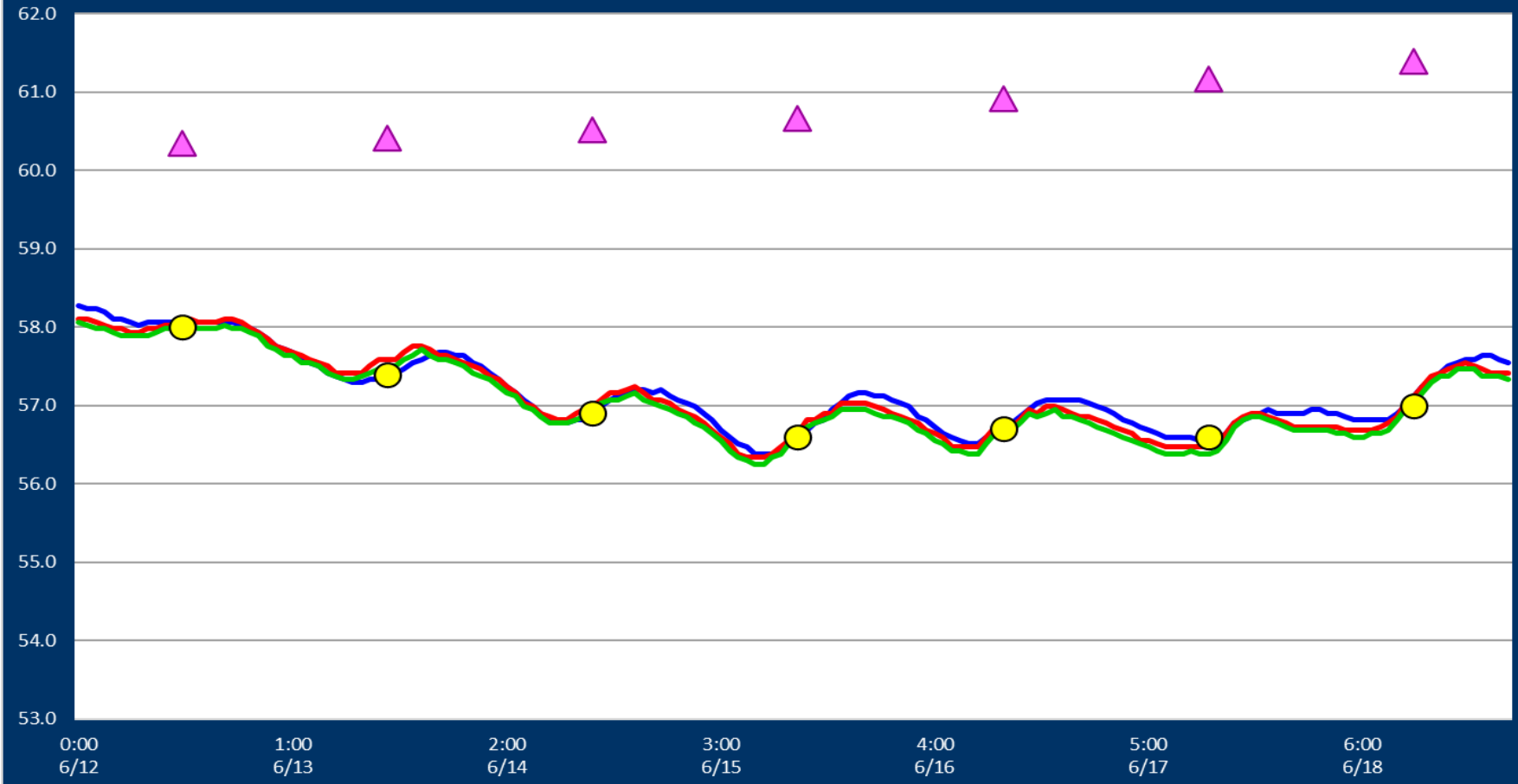
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Adult Fish Ladders-River Temperatures

— East Count Station — North Count Station — North Entrance ● Current USGS Daily Average ▲ USGS Daily Average (2007-2021)



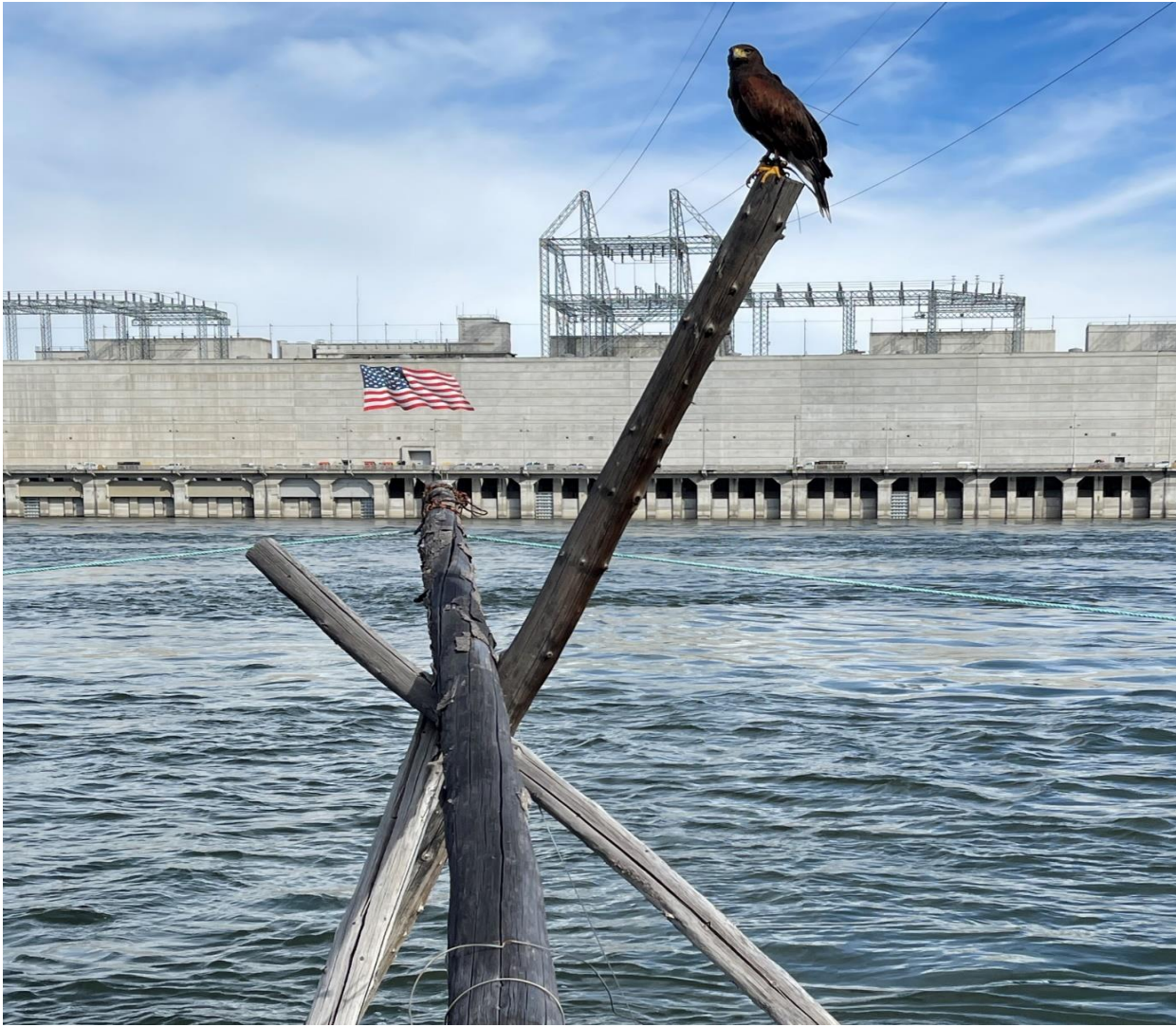
Secchi:		USGS°F
4.0	Sun	58.0
3.5	Mon	57.4
3.5	Tue	56.9
3.5	Wed	56.6
3.5	Thurs	56.7
3.5	Fri	56.6
3.5	Sat	57.0
3.6	AVG	57.0

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
6/12	1.5	11.5	1.3	6.5	10.2	10.6	20.4	1.4	9.9	10.2	6.7	1.5	11.7	8.7
	1.4	11.6	1.4	6.9	9.1	9.4	20.8	1.4	9.8	10.0	7.0	1.5	11.9	8.9
6/13	1.4	11.7	1.4	6.8	7.5	7.5	20.7	1.6	9.4	9.7	6.6	1.4	13.9	10.5
	1.5	11.6	1.5	6.9	7.5	7.6	20.8	1.5	9.7	10.0	7.0	1.4	13.0	9.4
6/14	1.4	11.5	1.9	5.4	10.1	10.6	19.3	1.6	8.6	8.8	6.1	1.7	11.0	7.8
	1.4	11.7	1.5	5.8	12.9	13.6	19.7	1.4	8.8	9.1	6.4	1.6	9.3	7.5
6/15	1.4	11.6	1.5	6.2	12.3	12.9	20.1	1.5	8.7	9.0	6.7	1.8	8.3	8.2
	1.4	11.8	1.6	6.4	12.8	13.5	20.3	1.4	9.1	9.3	7.0	1.2	8.0	8.0
6/16	1.5	11.7	1.4	5.3	14.0	14.2	19.3	1.5	8.7	9.0	5.9	1.2	7.5	7.5
	1.4	12.0	1.7	5.0	13.5	13.6	18.9	1.6	8.4	8.7	5.6	1.2	7.8	7.7
6/17	1.5	11.7	1.4	5.7	14.0	14.2	19.6	1.4	9.1	9.4	6.4	0.8	8.7	8.6
	0.8	11.8	1.3	10.3	14.4	14.7	19.3	1.4	8.8	9.2	5.8	1.7	7.2	7.1
6/18	0.6	11.8	1.6	10.4	11.7	12.0	18.4	1.4	8.8	9.2	6.0	1.4	7.7	7.7
	0.7	11.9	1.4	11.4	12.7	13.0	19.4	1.5	8.5	8.9	5.7	1.7	7.3	7.3
AVG:	1.3	11.7	1.5	7.1	11.6	12.0	19.8	1.5	9.0	9.3	6.3	1.4	9.5	8.2

Fishways are inspected twice daily.

found out of criteria



6/13/2022 "Thorn" creating gull NO FLY ZONE in Powerhouse count zone.



Spill from north fishladder entrance



Spill from gates south of spillwall