

The Dalles Dam Fishway Status Report

05/03/2020

Inspection Period: 4/26-5/02

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:	54.3 °F
			Comments: Increasing spill volume and GULL #.		Weekly Average Secchi:	4.4

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'	1.3
Entrance weir N1	0	depth (≥ 8')	9.8
Entrance weir N2	0	Closed	
PUD Intake differential	0	≤ 0.5'	Differential problems likely related to FB index damage.

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	1.1' ± 0.1'	
Junction pool weir JP6	0	≤ 7.0'	
East entrance differential	0	1.0' - 2.0'	Average for week = 1.6
Entrance weir E1	0	No criteria	Average for week = 6.5
Entrance weir E2	0	depth (≥ 8')	Average for week = 12.7
Entrance weir E3	0	depth (≥ 8')	Average for week = 12.7
Collection channel velocity	0	1.5 - 4 fps	2.79 fps Range: 3.31 fps MU6 - 2.39 fps MU9
Transportation channel velocity	0	1.5 - 4 fps	2.48 fps 4/24/2020
North channel velocity	0	1.5 - 4 fps	2.6 fps 4/25/2020
South channel velocity	0	1.5 - 4 fps	2.91 fps 4/25/2020
West entrance differential	0	1.0' - 2.0'	Average for week = 1.6
Entrance weir W1	0	depth (≥ 8')	Average for week = 11.5
Entrance weir W2	0	depth (≥ 8')	Average for week = 11.5
Entrance weir W3	0	No criteria	
South entrance differential	0	1.0' - 2.0'	Average for week = 1.5
Entrance weir S1	0	depth (≥ 8')	Average for week = 8.7
Entrance weir S2	0	depth (≥ 8')	Average for week = 8.7

JUVENILE PASSAGE

Sluiceway operation	0	Units 1, 7, 18	MU8 OOS, MU7 running per FPP.
Turbine trashrack drawdown	0	<1.5', biwkly	4/19/2020 checked
Spill volume/pattern	0	1 to 8	Spill 40% of total flow.
Turbine Unit Priority	0	per FPP	
Gatewells	0	Weekly	4/25/2020 no fish mortality.

OTHER ISSUES:

Fishway Operations

North and east fish ladders in full operation
Spillway open 40% for juvenile passage with Fish Passage Plan pattern
Sluiceway opened with open sluiceways 1-1,1-2,1-3,7-1,7-2,18-2.
Inspection Period: 4/26-5/02

Unit Outages

T10 (MU19 & 20) FOOS through 10/28/2021 due to acetylene levels
MU1 and MU2 restricted to 160 MW combined through 5/28/2020
MU8 OOS 1/21/2020 - 6/4/2020 for Overhaul
MU4 OOS through 5/7/20 for Annual

Maintenance

Calibration check 4/25/20; E1, out of calibration, but not criteria concern. East exit weir 158 calibration problem corrected.
Five of 6 east fishway collection channel dewatering pumps removed for repair/rehab. Two have new motors. Three more new pump motors being delivered.
East fishway automation replacement resumed. Staff brought in for PLC box assembly while maintaining workplace COVID guidelines.
Spillway assessment (MRER); No funding for FY20. Spillgate 9 fish priority included.
Staff gage loose from wall at south entrance channel. Steel plate of gage sticking out into flow, causing potential for fish injury. Maintenance removed by crane.
Onsite staffing reduction due to COVID. Making adjustments to accomplish as much workload as possible.

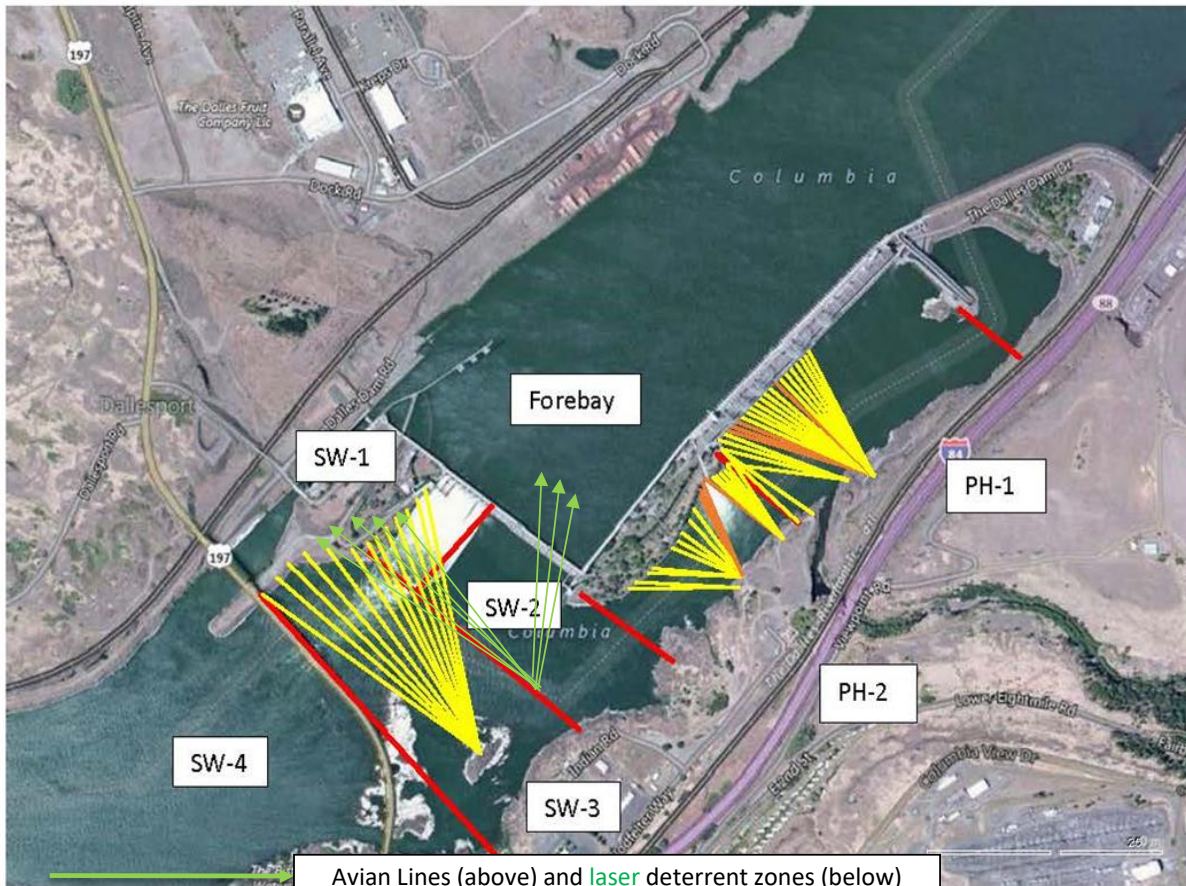
Predators

Green laser use for piscivorous bird hazing testing on hold. Laser Safety Officer training completed.
USDA hazing resumed 4/15/20. Gulls actively foraging below spillway. Gulls inside lines are hazed by USDA. Gull numbers highly variable day to day.
No sea lion observations this week. Operations implemented additional navlock operation guidelines in efforts to prevent sealions upstream passage.

Research/Construction/Contractors

Four Peaks fish counting ongoing.
AWS backup - Ready for operation if needed. Discussions continue about potential need for trashrack rake due to past plugging during operation.
PITAGS north and east fishladder data collection at count stations continues.
Dam angling resumes in May. **Bass/Walleye release due to state classification of game species.**
Fish unit breaker replace.- Completed.
Fish unit rehab - Phase 1A. Planning operation scenario with AWS backup water supply during construction. No funding.

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



Red lines = avian zones

Avian Lines (above) and laser deterrent zones (below)

Yellow lines = current wires

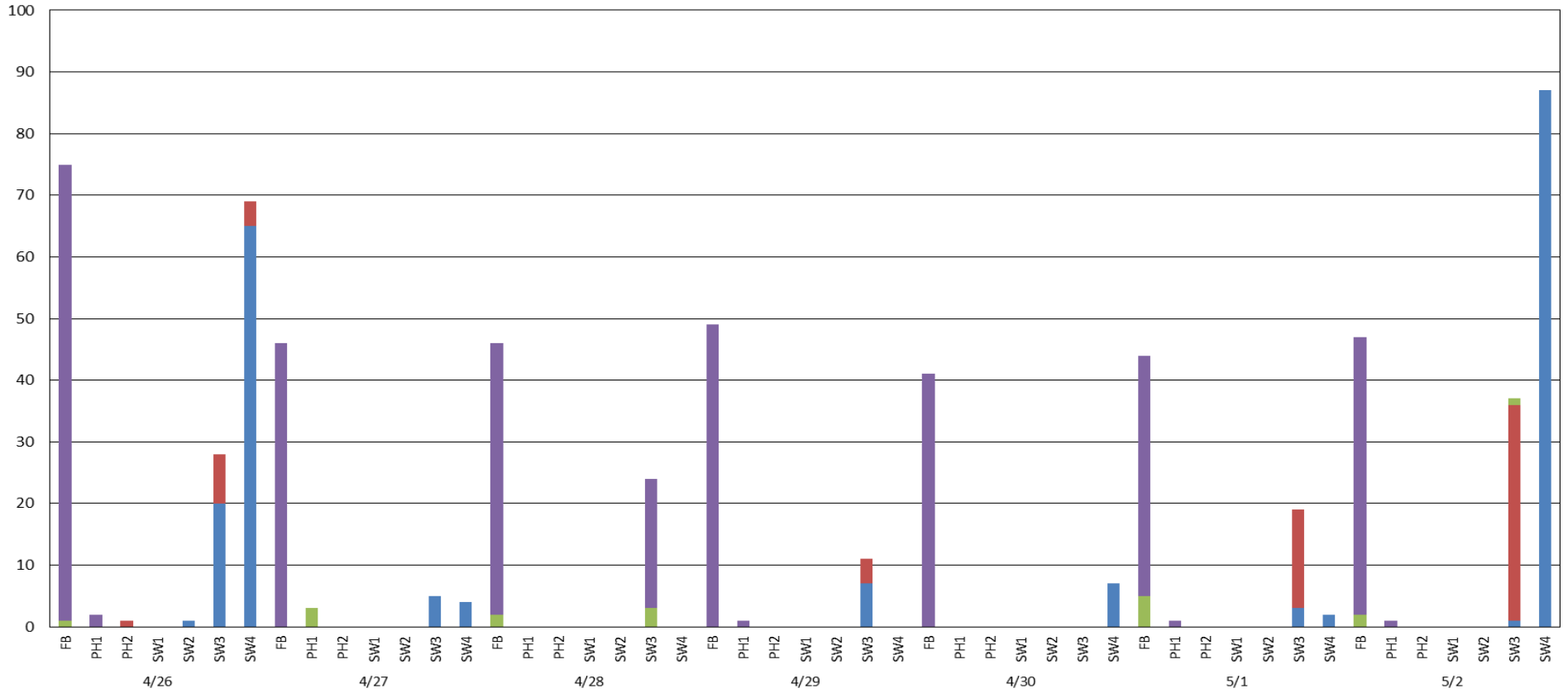
Orange lines = down or missing wires

Gull and Cormorant Activity

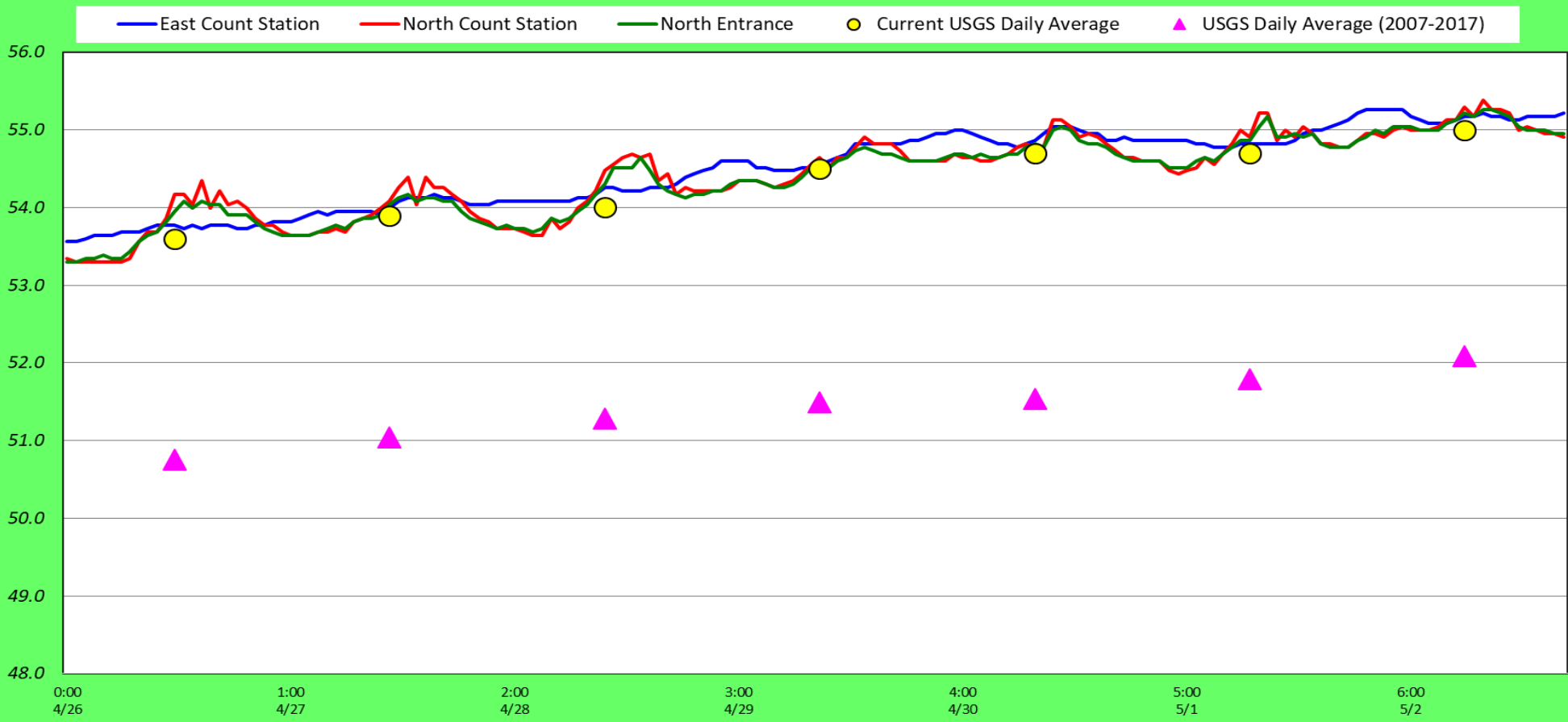
F=active forage
NF= Idle

Bird #'s

Sum of GULL F Sum of GULL NF Sum of DCCO F Sum of DCCO NF



Adult Fish Ladders-River Temperatures



		USGS:	
		Secchi:	°F
4/26	4.0	Sun	53.6
4/27	5.0	Mon	53.9
4/28	5.0	Tue	54.0
4/29	4.5	Wed	54.5
4/30	4.0	Thurs	54.7
5/1	4.0	Fri	54.7
5/2	4.0	Sat	55.0
	4.4	AVG	54.3

[March Temps](#)

April Temps

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
4/26			1.3	6.6	13.0	12.7	12.5	1.5	11.5	11.5	11.5	1.5	8.7	8.8
	1.3	9.7	1.4	6.4	12.7	12.7	12.7	1.6	11.4	11.4	11.4	1.5	8.6	8.7
			1.4	6.4	12.7	12.7	12.7	1.6	11.4	11.4	11.4	1.5	8.6	8.7
4/27			1.5	6.2	12.9	12.8	12.9	1.5	11.5	11.5	11.5	1.5	8.7	8.8
	1.3	9.7	1.6	6.6	12.8	12.9	13.0	1.6	11.4	11.5	11.5	1.4	8.8	8.7
	1.4	9.6	1.6	6.9	12.9	13.0	13.3	1.6	11.6	11.5	11.5	1.4	8.8	8.7
4/28			1.5	6.6	12.7	12.7	12.2	1.5	11.4	11.4	11.4	1.4	8.8	8.8
	1.3	9.7	1.5	6.5	12.8	12.8	12.3	1.5	11.5	11.5	11.5	1.5	8.8	8.8
	1.3	9.6	1.8	6.4	12.8	12.8	14.0	1.7	11.5	11.5	11.5	1.5	8.8	8.8
4/29			1.7	6.6	12.8	12.8	14.3	1.7	11.5	11.5	11.5	1.5	8.7	8.7
	1.3	9.9	1.7	6.6	12.8	12.8	14.3	1.7	11.5	11.5	11.5	1.6	8.6	8.6
	1.2	10.1	1.6	6.4	12.7	12.7	14.1	1.6	11.5	11.5	11.5	1.5	8.7	8.7
4/30			1.5	6.4	12.8	12.8	13.9	1.6	11.5	11.5	11.5	1.5	8.6	8.6
	1.4	9.8	1.4	6.3	12.8	12.8	13.3	1.6	11.6	11.6	11.6	1.5	8.5	8.5
	1.2	10.0	1.5	4.5	12.7	12.7	12.4	1.4	11.7	11.7	11.7	1.4	8.8	8.8
5/1			1.5	4.5	12.8	12.8	13.1	1.5	11.5	11.5	11.5	1.5	8.7	8.7
	1.3	10.0	1.6	7.4	12.5	12.5	13.9	1.6	11.5	11.5	11.5	1.5	8.7	8.7
	1.3	10.0	1.6	7.6	12.5	12.5	13.9	1.6	11.6	11.6	11.6	1.5	8.7	8.7
5/2			1.6	7.5	12.6	12.6	14.4	1.7	11.5	11.5	11.5	1.5	8.7	8.7
	1.3	9.9	1.6	7.5	12.7	12.9	14.2	1.6	11.5	11.5	11.5	1.5	8.7	8.6
	1.3	10.0	1.8	7.5	12.5	12.5	13.9	1.6	11.4	11.4	11.4	1.4	8.6	8.5
AVG:	1.3	9.8	1.6	6.5	12.7	12.7	13.4	1.6	11.5	11.5	11.5	1.5	8.7	8.7

Fishways are inspected once daily plus one SCADA inspection.