

The Dalles Dam Fishway Status Report

04/19/20

Inspection Period: 4/12-4/18, 2020

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: 49.8 °F
			Comments:		Weekly Average Secchi: 4.2

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'	1.4
Entrance weir N1	0	depth (≥ 8')	9.3
Entrance weir N2		Closed	
PUD Intake differential	2	≤ 0.5'	twice exceeded 0.5'

EAST FISHWAY

Exit differential	0	≤ 0.5'	
Removable weirs 154-157	2	Per forebay	weir 156 slow to respond to changing forebay
Weir 158-159 differential	0	1.1' ± 0.1'	
Count station differential	0	≤ 0.3'	
153 Weir crest depth	1	1.1' ± 0.1'	once exceeded 1.2'
Junction pool weir JP6	0	≤ 7.0'	11.0
East entrance differential	0	1.0' - 2.0'	1.5
Entrance weir E1	0	No criteria	5.6
Entrance weir E2	0	depth (≥ 8')	12.0
Entrance weir E3	0	depth (≥ 8')	12.0
Collection channel velocity	0	1.5 - 4 fps	2.68 fps Range: 3.44 fps MU21 - 1.56 fps MU16
Transportation channel velocity	0	1.5 - 4 fps	2.33 fps
North channel velocity	0	1.5 - 4 fps	2.29 fps
South channel velocity	0	1.5 - 4 fps	3.36 fps
West entrance differential	0	1.0' - 2.0'	1.5
Entrance weir W1	0	depth (≥ 8')	10.9
Entrance weir W2	0	depth (≥ 8')	10.9
Entrance weir W3	0	No criteria	
South entrance differential	0	1.0' - 2.0'	1.5
Entrance weir S1	0	depth (≥ 8')	8.3
Entrance weir S2	6	depth (≥ 8')	8.3 Calibration indicates gate .5' higher than PLC. Out of criteria mechanical failure

Sluiceway operation	0	Units 1, 7, 18/1	MU8 OOS adjusted to nearest MU according to FPP. MU18 OOS 4/13-4/16, 17-3 opened per FPP.
Turbine trashrack drawdown	0	<1.5', biwkly	Completed 4/13/2020
Spill volume/pattern	0	Gates 1-8	40% of combined river flow.
Turbine Unit Priority	0	per FPP	
Gatewells	0	Weekly	No mortality observed.

OTHER ISSUES:

Fishway Operations

North and east fish ladders in full operation
Spill started 4/10 at 40% river flow
Sluiceway open gates at 1-1,1-2,1-3,7-2, 7-3, 17-3.

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 - 5/7/2020 for Overhaul.

Maintenance

Calibration check 4/13/20; E1 (no criteria), S2 out of calibration, out of criteria. North Forebay index damaged/out of calibration, adjustments made to data report form.
Five of 6 east fishway collection channel dewatering pumps removed for repair/rehab. Awaiting new pump motors. Assembly delayed due to COVID
East fishway automation replacement installation start delayed due to COVID staff plan. Planning underway to separate workstations for more onsite staffing.
Spillway assessment (MRER); No funding for FY20. Spillgate 9 fish priority included on the list.
COVID creating major challenges accomplishing maintenance tasks. Maintenance leaders are working on plans to still accomplish as much as possible in safe manner.

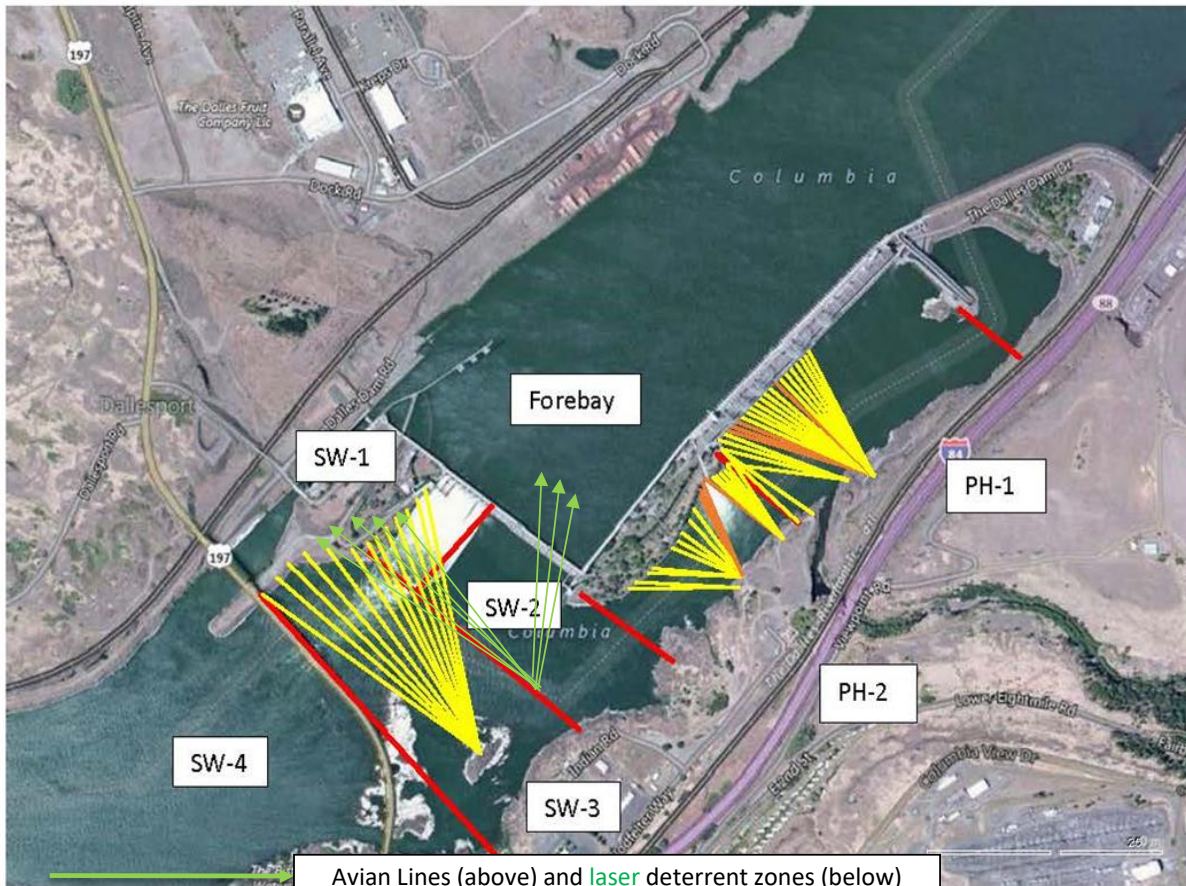
Predators

Green laser use for piscivorous bird hazing testing on hold until all safety concerns and training requirements are addressed.
USDA hazing resumed 4/16/20
No sea lion observations this week.

Research/Construction/Contractors

Four Peaks fish counting started 4/1.
PSMFC juvenile sampling started 4/1. Refer to PSMFC weekly report for results.
USGS water quality started 3/12
AWS backup - Ready for operation if needed.
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. Line 1 and 3 available for use.
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



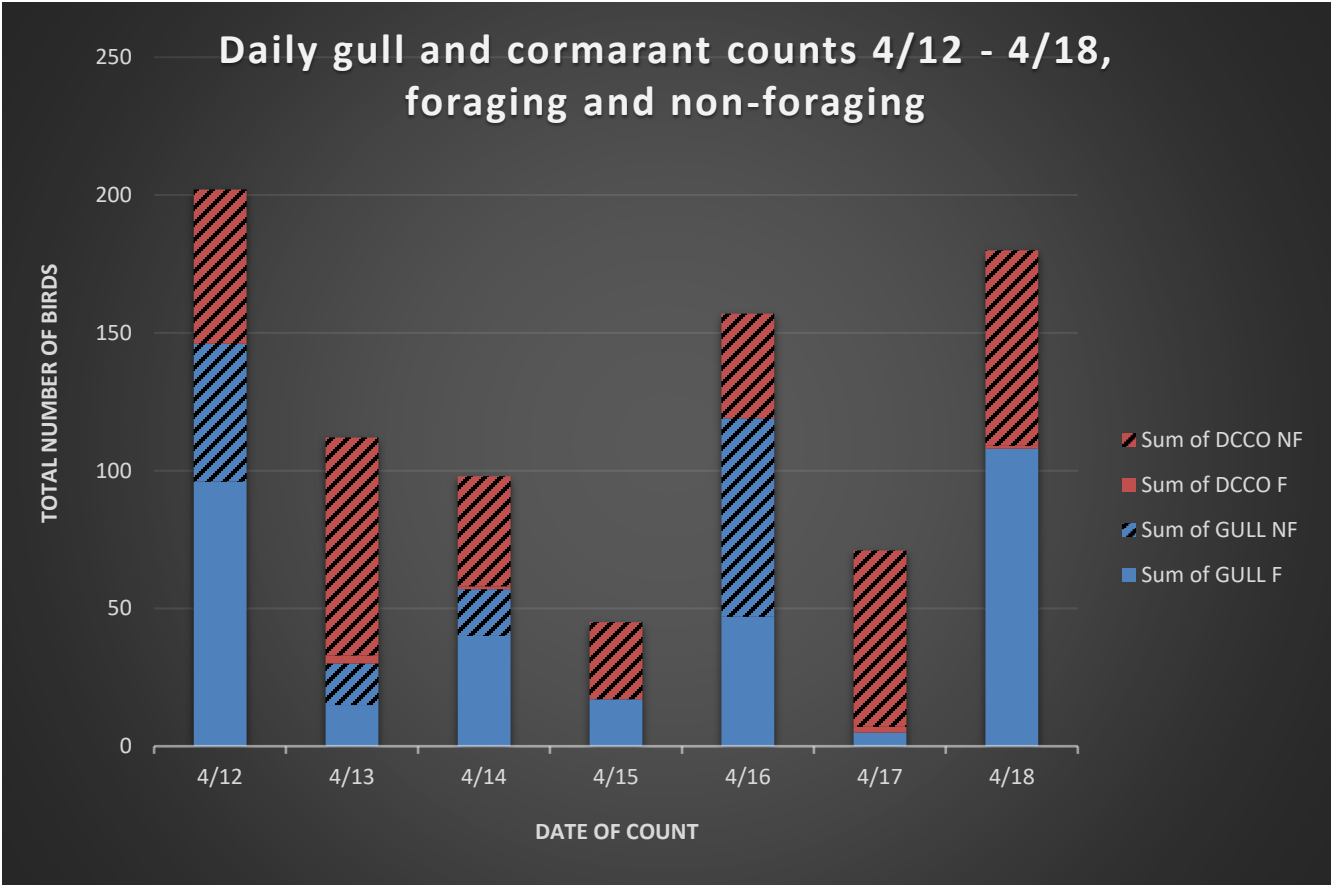
Red lines = avian zones

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

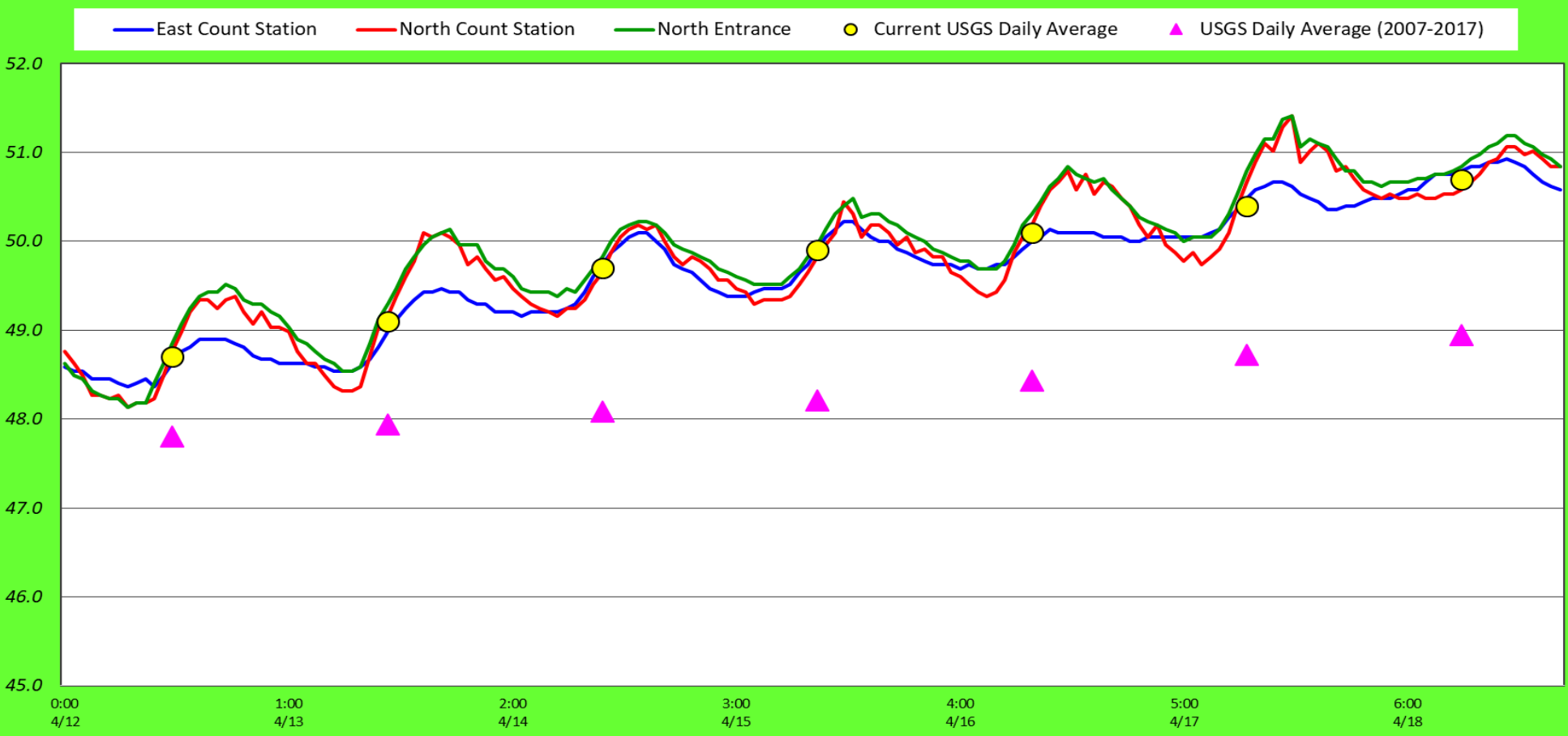
Yellow lines = current wires

Orange lines = down or missing wires

Daily gull and cormarant counts 4/12 - 4/18,
foraging and non-foraging



Adult Fish Ladders-River Temperatures



		USGS:	
		Secchi:	°F
4/12	4.0	Sun	48.7
4/13	4.0	Mon	49.1
4/14	4.0	Tue	49.7
4/15	4.0	Wed	49.9
4/16	4.5	Thurs	50.1
4/17	4.5	Fri	50.4
4/18	4.5	Sat	50.7
	4.2	AVG	49.8

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				W3	South Entrance	
			Differential	E1 Depth	E2 Depth	E3 Depth	JP 6	Differential	W1	W2	Differential		S1	S2
4/12			1.5	7.5	12.0	12.0	11.0	1.4	11.3	11.3	closed	1.4	8.3	8.3
	1.4	9.2	1.5	7.5	12.0	12.0	11.2	1.5	10.8	10.8		1.4	8.4	8.4
			1.5	5.9	11.9	11.9	10.9	1.5	10.7	10.7		1.5	8.3	8.3
4/13			1.4	6.0	12.1	12.0	11.2	1.5	10.7	10.7		1.5	8.4	8.3
	1.3	9.2	1.5	5.9	12.0	11.9	11.1	1.6	10.7	10.7		1.5	8.2	8.2
	1.4	9.2	1.5	6.0	12.1	12.0	11.0	1.5	10.8	10.8		1.4	8.4	8.3
4/14			1.5	6.0	12.0	12.0	10.5	1.5	10.8	10.8		1.5	8.3	8.3
	1.3	10.2	1.4	6.0	12.0	12.0	10.5	1.3	10.8	10.8		1.5	8.2	8.2
	1.4	9.1	1.3	6.1	12.1	12.1	10.8	1.4	10.6	10.6		1.4	8.4	8.3
4/15			1.3	5.9	12.0	12.0	10.2	1.3	10.7	10.7		1.4	8.3	8.3
	1.4	9.2	1.4	5.1	12.0	12.0	10.4	1.5	10.6	10.6		1.4	8.3	8.3
	1.3	9.3	1.5	5.0	12.1	12.1	10.5	1.5	10.8	10.8		1.4	8.4	8.4
4/16			1.5	5.1	12.0	12.0	11.1	1.6	10.7	10.7		1.5	8.3	8.3
	1.3	9.4	1.5	5.0	12.0	12.0	11.0	1.5	10.7	10.7		1.5	8.3	8.3
	1.4	9.3	1.4	5.0	12.0	12.0	11.0	1.4	10.8	10.8		1.5	8.3	8.3
4/17			1.5	5.1	11.9	12.1	11.7	1.8	10.6	10.6		1.6	8.2	8.2
	1.4	9.3	1.5	5.0	12.0	12.0	11.8	1.6	11.1	11.1		1.5	8.3	8.3
	1.4	9.3	1.6	5.0	12.0	12.0	11.8	1.5	11.2	11.2		1.6	8.3	8.2
4/18			1.6	4.9	12.0	11.9	11.3	1.4	11.3	11.3	1.5	8.3	8.2	
	1.3	9.3	1.6	5.0	11.9	12.0	11.4	1.5	11.2	11.2	1.5	8.4	8.4	
	1.3	9.3	1.6	5.5	12.1	12.1	11.2	1.4	11.2	11.2	1.5	8.2	8.2	
AVG:	1.4	9.3	1.5	5.6	12.0	12.0	11.0	1.5	10.9	10.9		1.5	8.3	8.3

Fishways are inspected once daily plus one SCADA inspection.