

# The Dalles Dam Fishway Status Report

05/24/2020

Inspection Period: 5/17-5/23

## THE DALLES DAM



US Army Corps  
of Engineers  
Portland District

The Dalles Project-Fisheries  
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<b>The Dalles Dam</b>	<b>Inspections OOC</b>	<b>Criteria Limit</b>	<b>Total Number of Inspections:</b> 21	<b>Temperature:</b> 55.1 °F
			<b>Comments: Increasing spill volume and GULL #.</b>	<b>Weekly Average Secchi:</b> 3.4

### 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')	9.9
Entrance weir N2	0	Closed	
PUD Intake differential	0	≤ 0.5'	

### EAST FISHWAY

Exit differential	0	≤ 0.5'	
Removable weirs 154-157	0	Per forebay	155 lagging behind forebay level
Weir 158-159 differential	0	1.1' ± 0.1'	Maintenance adjusted.
Count station differential	0	≤ 0.3'	
153 Weir crest depth	0	1.1' ± 0.1'	
Junction pool weir JP6	0	> 7.0'	Average for week = 16.5'
East entrance differential	0	1.0' - 2.0'	Average for week = 1.5
Entrance weir E1	0	No criteria	Average for week = 10.9
Entrance weir E2	0	depth (≥ 8')	Average for week = 12.5
Entrance weir E3	0	depth (≥ 8')	Average for week = 12.5
Collection channel velocity	0	1.5 - 4 fps	2.81 fps, 5/9/2020 Range: 3.44 fps MU20 - 1.76 fps MU1
Transportation channel velocity	0	1.5 - 4 fps	1.94 fps, 5/9/2020
North channel velocity	0	1.5 - 4 fps	1.93 fps, 5/9/2020
South channel velocity	0	1.5 - 4 fps	2.79 fps, 5/9/2020
West entrance differential	0	1.0' - 2.0'	Average for week = 1.5
Entrance weir W1	0	depth (≥ 8')	Average for week = 12.5
Entrance weir W2	0	depth (≥ 8')	Average for week = 12.5
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 = 8.9
Entrance weir S2	0	depth (≥ 8')	Average for week = 8.9

### JUVENILE PASSAGE

Sluiceway operation	0	Units 1, 7, 18	MU8 OOS, MU7 running per FPP.
Turbine trashrack drawdown	0	<1.5', biwkly	5/19/2020 checked, all in criteria.
Spill volume/pattern	0	1 to 8	Spill 40% of total flow.
Turbine Unit Priority	0	per FPP	Per control room reports.
Gatewells	0	Weekly	5/19/2020 One sub yearling mortality, MU-3. MU-wells difficult to see due to cloud cover.

## 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 (sluiceways 1-1,1-2,1-3,7-2,7-3,18-2)

### Unit Outages

T10 (MU19 & 20) forced out of service through 10/28/2021 due to acetylene levels  
MU1 and MU2 restricted to 160 MW combined through 5/28/2020  
MU8 out of service through 7/10/2020 for Overhaul

### Maintenance

Calibration check 5/19/20; W-2 gate out of calibration, but remains in criteria.  
Five of 6 east fishway collection channel dewatering pumps removed for repair/rehab. Work to resume next week.  
East fishway automation replacement underway. PLC box assembly completed. Starting installation at entrance and exit locations.  
Spillway assessment (MRER); No funding for FY20. Spillgate 9 trunnion pin included.  
Onsite staffing reduced due to COVID. Making adjustments to accomplish as much workload as possible. Planning phased returning staff back on site.

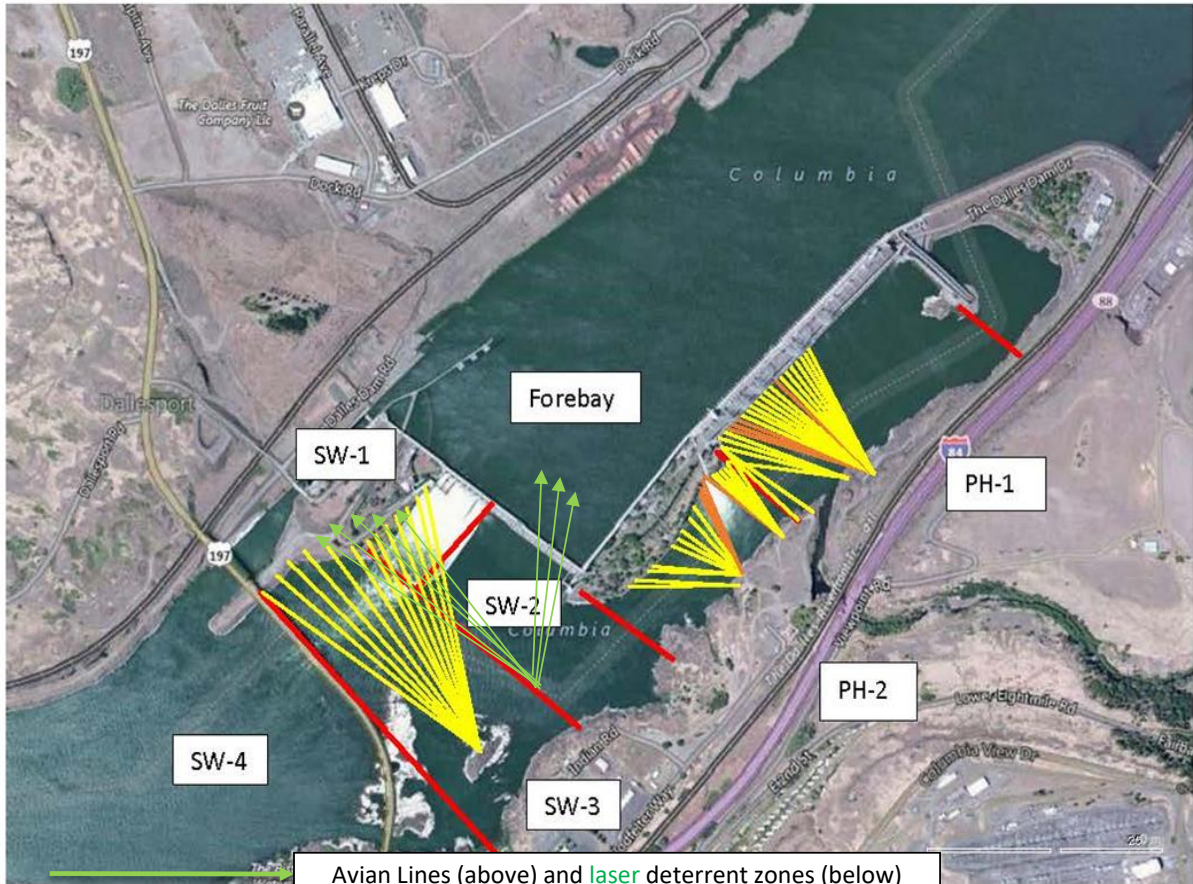
### Predators

Green laser use for piscivorous bird hazing testing on hold. Safety concerns being addressed.  
USDA hazing underway. Gulls and Pelicans foraging below spillway. Gulls inside lines are hazed by USDA. Cormorants nesting on forebay powerline towers.  
No sea lion sightings. Navlock operations modified to restrict possible upstream sea lion passage.

### Research/Construction/Contractors

Four Peaks fish counting ongoing.  
AWS backup - Ready for operation if needed. Discussions continue about potential need for trashrack rake. Level of debris loading will be investigated.  
PITAGS north and east fishladder data collection at count stations continues. Some interference problems on east antennas. PITAGS troubleshooting.  
Pikeminnow dam angling started. Twenty eight pikeminnow removed. **Bass/walleye release continues**  
Fish unit breaker replacement completed. Contractor back on site mid June for finishing touches. No fish unit outage required.  
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

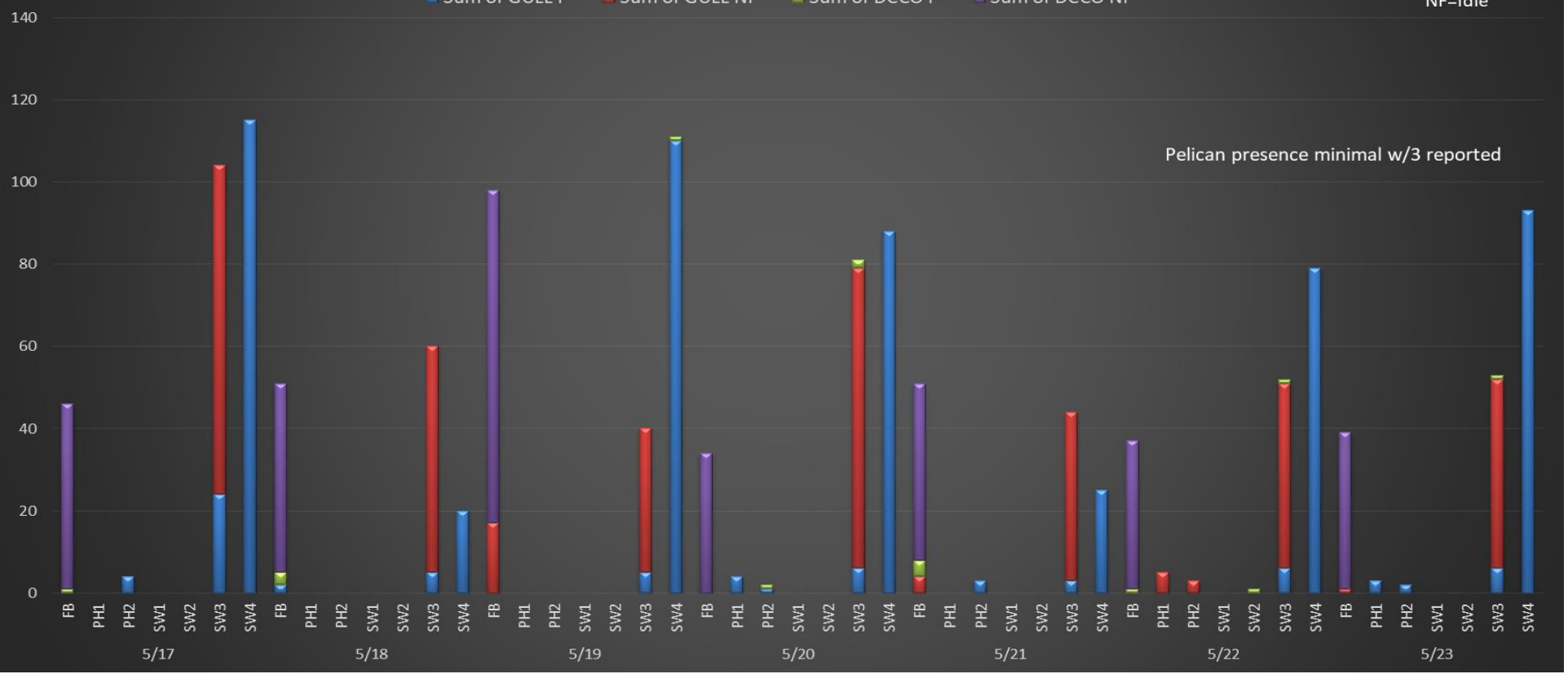
Orange lines = down or missing wires

# Gull and Cormorant activity by Zone

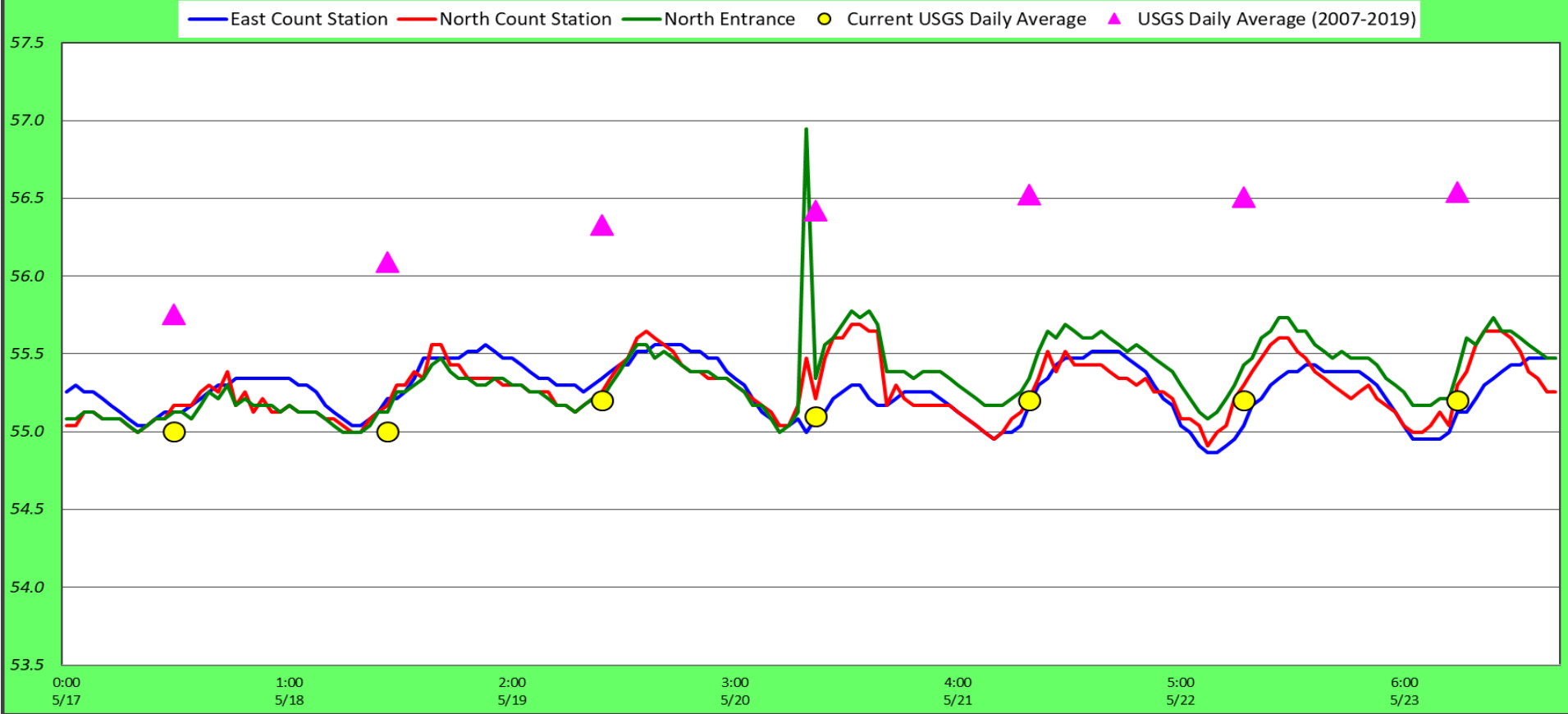
▾ Sum of GULL F   
 ▾ Sum of GULL NF   
 ▾ Sum of DCCO F   
 ▾ Sum of DCCO NF

F=Forage  
NF=Idle

Pelican presence minimal w/3 reported



# Adult Fish Ladders-River Temperatures



	Secchi:		°F	<a href="#">USGS link</a>
5/17	3.5	Sun	55.0	
5/18	4.0	Mon	55.0	
5/19	4.0	Tue	55.2	
5/20	3.0	Wed	55.1	
5/21	3.0	Thurs	55.2	
5/22	3.0	Fri	55.2	
5/23	3.0	Sat	55.2	
	3.4	AVG	55.1	

**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
5/17			1.5	10.9	12.3	12.3	14.0	1.2	12.6	12.6	6.6	1.3	8.7	8.8
	1.3	9.9	1.3	11.1	12.5	12.5	14.5	1.2	12.6	12.6	6.6	1.5	8.7	8.8
	1.3	9.8	1.3	11.0	12.6	12.5	14.6	1.3	12.4	12.4	6.4	1.4	8.9	8.9
5/18			1.4	11.3	12.6	12.6	15.8	1.5	12.5	12.5	6.7	1.5	8.8	8.8
	1.3	9.8	1.5	11.1	12.4	12.5	15.7	1.4	12.5	12.5	6.6	1.5	8.7	8.7
	1.3	9.9	1.5	10.9	12.4	12.6	16.0	1.5	12.4	12.4	6.4	1.4	8.9	8.9
5/19			1.5	10.9	12.4	12.4	16.7	1.5	12.4	12.4	6.5	1.5	8.8	8.8
	1.3	9.9	1.5	11.1	12.5	12.5	17.1	1.6	12.6	12.6	6.5	1.5	8.9	8.9
	1.3	9.9	1.6	10.9	12.5	12.4	16.9	1.6	12.5	12.5	6.5	1.5	8.8	8.8
5/20			1.6	11.1	12.4	12.4	17.9	1.8	12.5	12.5	6.4	1.6	8.8	8.8
	1.3	9.9	1.6	11.1	12.6	12.6	18.1	1.6	12.6	12.6	9.2	1.5	9.1	9.1
	1.2	10.0	1.6	11.4	12.4	12.4	18.1	1.6	12.4	12.4	10.0	1.5	9.0	9.0
5/21			1.8	8.0	12.5	12.5	17.1	1.5	12.5	12.5	9.9	1.6	9.0	9.0
	1.2	9.8	1.5	9.9	12.5	12.5	17.1	1.4	12.5	12.5	10.2	1.5	9.0	9.0
	1.3	9.9	1.7	9.9	12.4	12.4	17.3	1.5	12.5	12.5	9.9	1.5	8.9	8.9
5/22			1.6	11.0	12.5	12.5	16.5	1.4	12.6	12.6	10.0	1.4	9.1	9.1
	1.3	10.1	1.5	12.0	12.5	12.4	17.0	1.4	12.5	12.5	9.6	1.5	9.0	8.9
	1.3	9.9	1.6	11.9	12.4	12.4	16.9	1.5	12.1	12.1	9.5	1.5	8.9	8.9
5/23			1.6	11.9	12.5	12.5	16.9	1.4	12.2	12.2	9.5	1.4	9.0	9.0
	1.3	9.9	1.6	11.9	12.5	12.5	17.3	1.4	12.2	12.2	9.5	1.5	8.9	8.9
	1.3	10.0	1.6	12.0	12.6	12.6	17.4	1.5	12.3	12.3	9.6	1.4	9.0	9.0
<b>AVG:</b>	<b>1.3</b>	<b>9.9</b>	<b>1.5</b>	<b>10.9</b>	<b>12.5</b>	<b>12.5</b>	<b>16.5</b>	<b>1.5</b>	<b>12.5</b>	<b>12.5</b>	<b>8.0</b>	<b>1.5</b>	<b>8.9</b>	<b>8.9</b>

***Fishways are inspected once daily plus one SCADA inspection.***



~40 juvenile salmonid in gatewell 18-1. Some also in other gatewells, No mortality observed. Gatewell orifices permanently closed.