

# The Dalles Dam Fishway Status Report

03/15/20

Inspection Period: 3/8-3/14, 2020

## THE DALLES DAM



US Army Corps  
of Engineers  
Portland District

The Dalles Project-Fisheries  
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<b>The Dalles Dam</b>	Inspections OOC	Criteria Limit	<b>Total Number of Inspections:</b>	<b>Temperature:</b> 42.9 °F
			<b>Comments:</b>	<b>Weekly Average Secchi:</b> 4.5

### 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'	Average for week = 1.3
Entrance weir N1	0	depth (≥ 8')	Average for week = 9.3
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	
Weir 158-159 differential	0	1.1' ± 0.1'	
Count station differential	0	≤ 0.3'	
153 Weir crest depth	0	1.1' ± 0.1'	exceeded 1.2'
Junction pool weir JP6	0	≤ 7.0'	
East entrance differential	1	1.0' - 2.0'	Average for week = 1.4
Entrance weir E1	0	No criteria	Average for week = 9.5
Entrance weir E2	0	depth (≥ 8')	Average for week = 11.2
Entrance weir E3	0	depth (≥ 8')	Average for week = 11.2
Collection channel velocity	0	1.5 - 4 fps	2.99 fps Range: 2.5 fps MU1 - 3.4 fps MU 6, 3/12/2020
Transportation channel velocity	0	1.5 - 4 fps	NA fps 3/12/2020
North channel velocity	0	1.5 - 4 fps	2.60 fps 3/12/2020
South channel velocity	0	1.5 - 4 fps	3.72 fps 3/12/2020
West entrance differential	1	1.0' - 2.0'	Average for week = 1.4
Entrance weir W1	0	depth (≥ 8')	Average for week = 10.1
Entrance weir W2	0	depth (≥ 8')	Average for week = 10.1
Entrance weir W3	0	No criteria	Average for week = 3.5
South entrance differential	1	1.0' - 2.0'	Average for week = 1.4
Entrance weir S1	0	depth (≥ 8')	Average for week = 8.6
Entrance weir S2	0	depth (≥ 8')	Average for week = 8.6

**Entrance differentials OOC prior to 0700  
for troubleshooting T3 grounding issue**

### JUVENILE PASSAGE

Sluiceway operation	0	Units 1, 18	
Turbine trashrack drawdown	0	<1.5', biwkly	Differential .1 to .6'. Fish check; No mortalities observed. 3/11/2020
Spill volume/pattern	0	None	
Turbine Unit Priority	0	Units 1, 18	Refer to next page for scheduled and forced outages.
	0		

## OTHER ISSUES:

### Fishway Operations

North fish ladder in full service  
East fish ladder in full service  
Spillway closed  
Sluiceway opened with 2 open sluiceways unit 1 and 2 open unit 18

### 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  
MU12 OOS 12/2/2019 - 3/18/2020 T6 GSU Replacement & Annual  
MU11 OOS 12/2/2019 - 3/18/2020 T6 GSU Replacement & O/H  
MU8 OOS 1/21/2020 - 3/26/2020 for Overhaul.

### Maintenance

Calibration check 3/10/20; E1, S2 out of calibration. Working with maintenance to correct.  
Five of 6 east fishway collection channel dewatering pumps removed for repair/rehab. Awaiting new pump motors for installation.  
East fishway automation replacement installation starting. Brackets for sensors installed at east entrance. PLC box assembly starting in March.  
North fishway lower diffuser valves inspected. Status to be included in overall diffuser valve plan.  
North ladder count station malfunctioning diffuser valve removed and repaired. New valve purchased for install next year. Old valve will serve as spare.  
North ladder vegetation removal done for this year. About 30% complete. All low hanging vegetation removed.  
North ladder PUD intake trashrack ROV inspection Feb 26. Trashrack intact and no debris.  
North ladder exit debris boom repaired with new improved seal for oil sheen barrier. Installed Feb 27.  
Spillway assessment (MRER); No funding for FY20. Spillgate 9 fish priority included.  
East ladder exit weir 158 periodically binding and not lowering due to seal issues. Making operational adjustments to maintain criteria.

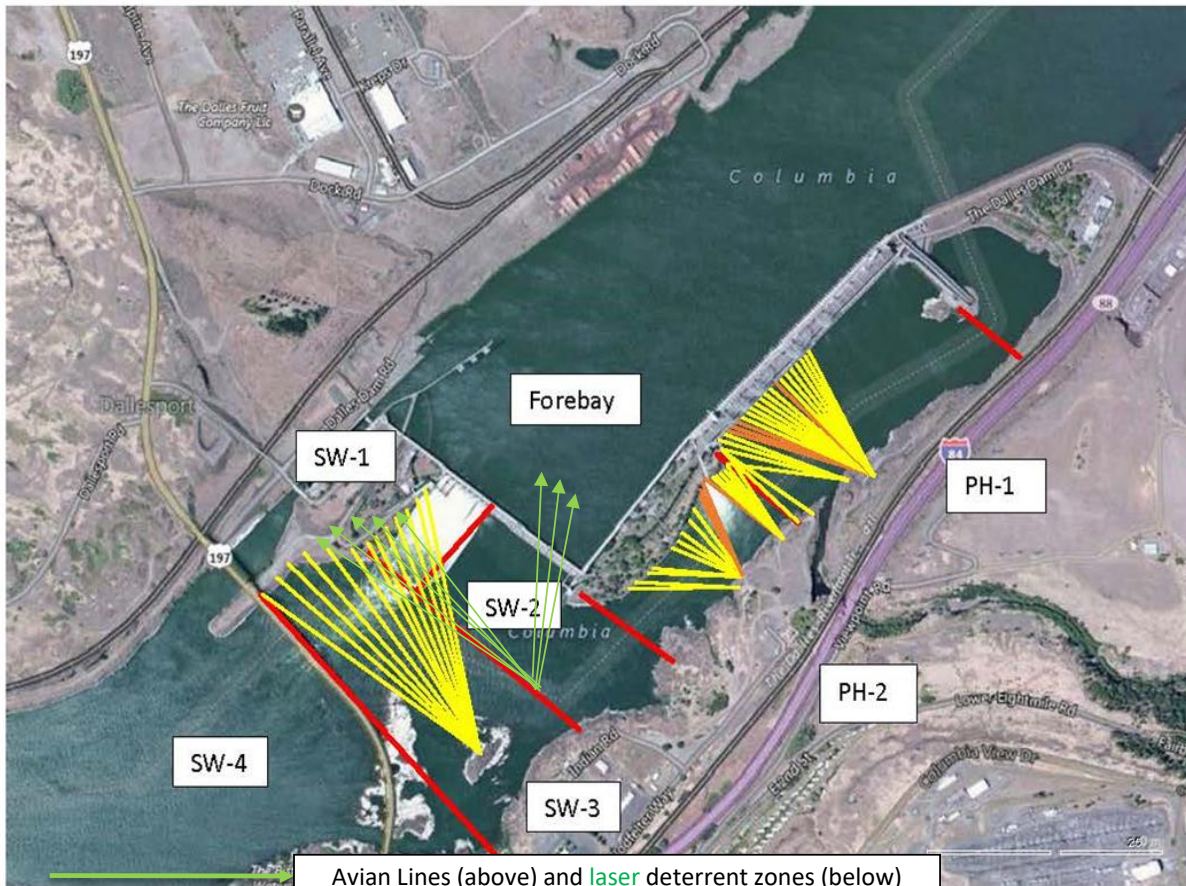
### Predators

Green laser use for piscivorous bird hazing testing on hold until all safety concerns are addressed.  
USDA hazing resumes 4/15/20. Preseason planning meeting complete.  
No sea lion observations this week.

### Research/Construction/Contractors

Four Peaks fish counting returning 4/1 Fish counter orientation 3/19. Preparing count stations. Pre season meeting with individuals staff this week.  
AWS backup - Commissioning completed. Ready for operation if needed. Trying to address concerns over trashrack cleaning deficiency  
PITAGS north and east fishladder data collection at count stations continues.  
Dam angling 2019 total 2228 pikeminnow, 98 smallmouth bass and 6 walleye caught. **Bass/Walleye released due to state classification of game species.**  
Fish unit breaker replace.- Work complete. Operating fish units on T3/line 3.  
Fish unit rehab - Phase 1A. Planning operation scenario with AWS backup water supply during construction. No funding.  
Transformer replacement - Possible schedule shift due to delay concerns. May swap T1 (scheduled for 3/23) outage with T7.

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



Red lines = avian zones

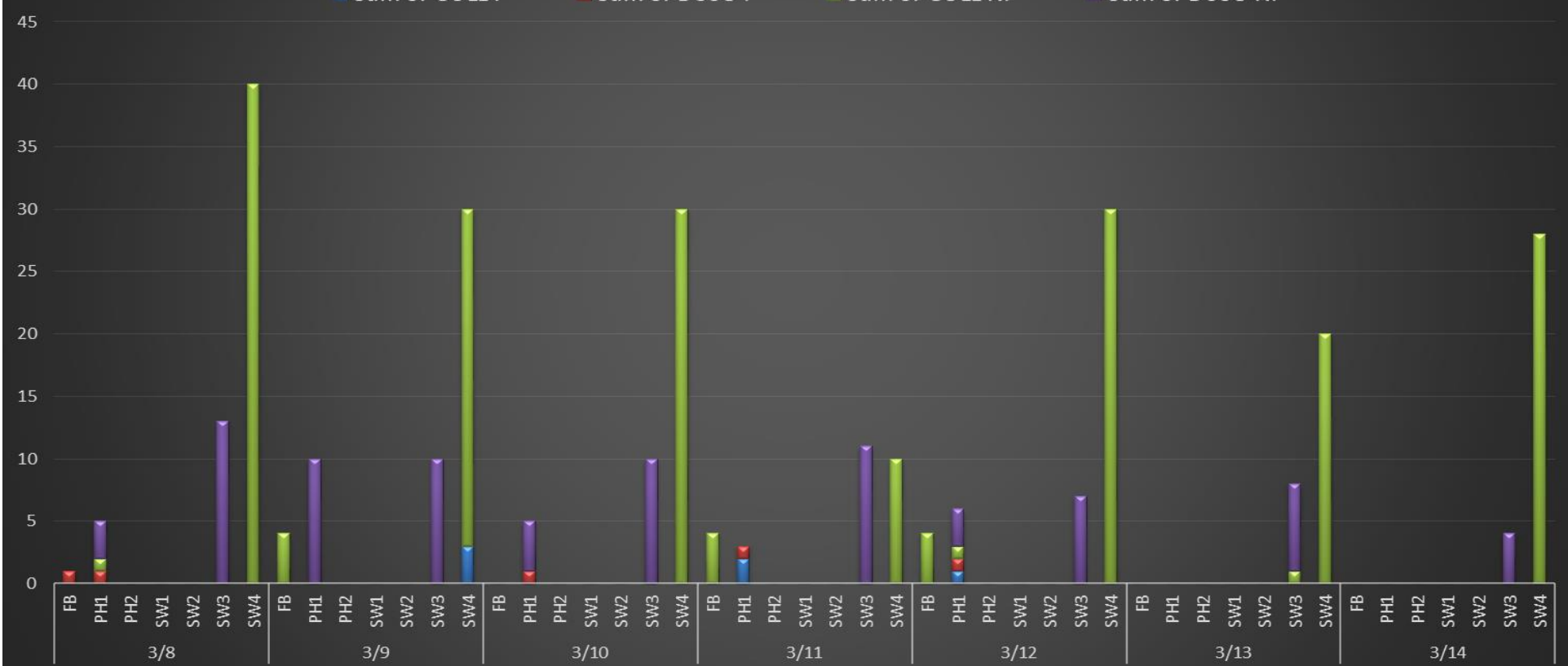
Avian Lines (above) and laser deterrent zones (below)

Yellow lines = current wires

Orange lines = down or missing wires

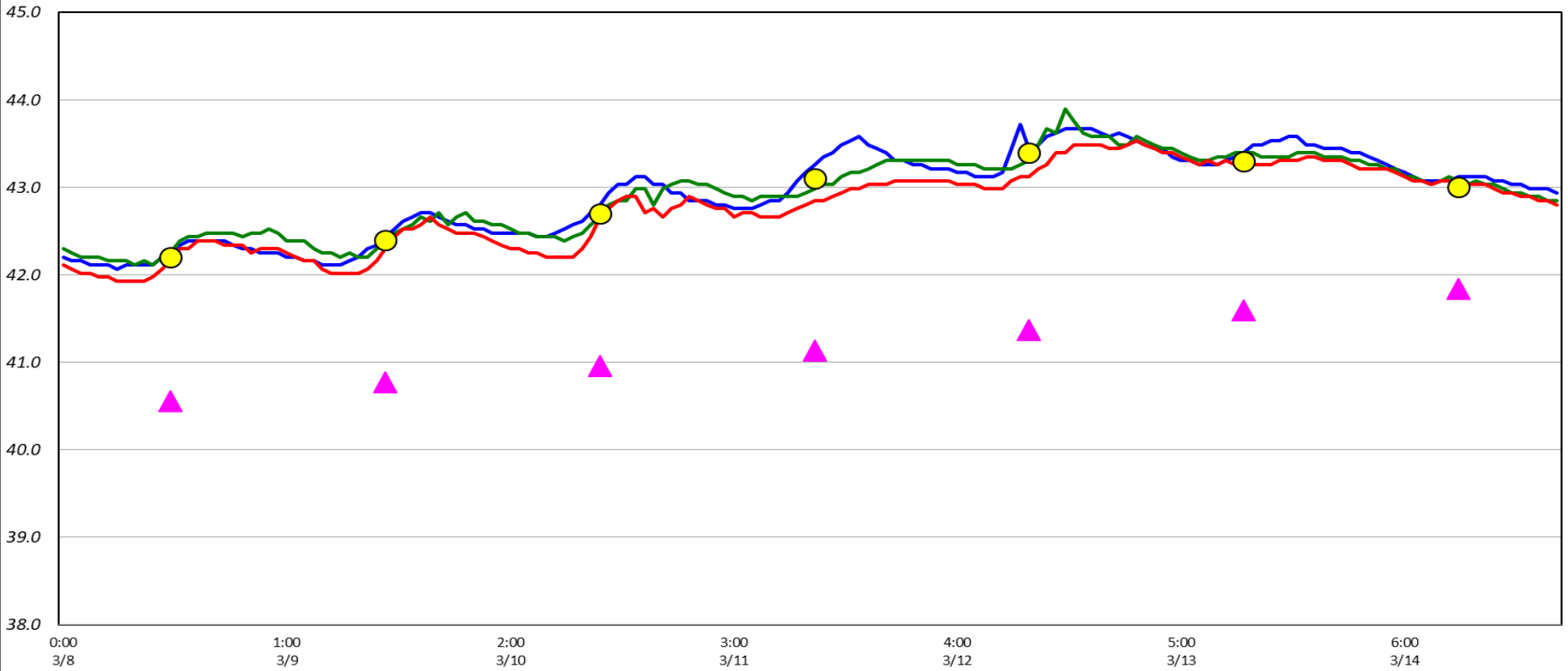
# Gull and Cormorant Activity by Zone

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



# Adult Fish Ladder(s)-River Temperatures

— East Count Station    — North Count Station    — North Entrance    ● Current USGS Daily Average    ▲ USGS Daily Average (2007-2019)





158 horizontal seal issue causing periodic binding.

		USGS:	
Secchi:		°F	
3/8	4.0	Sun	42.2
3/9	5.0	Mon	42.4
3/10	5.5	Tue	42.7
3/11	5.0	Wed	43.1
3/12	4.0	Thurs	43.4
3/13	4.0	Fri	43.3
3/14	4.0	Sat	43.0
	4.5	AVG	42.9

[March 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
3/8			1.5	9.0	11.0	11.1	12.6	1.7	9.7	9.7	4.0	1.5	8.6	8.6
	1.27	9.2	1.7	9.0	10.9	10.9	11.5	1.5	10.0	10.0	4.0	1.4	8.6	8.6
	1.19	9.2	1.5	9.5	11.0	11.1	11.0	1.4	10.0	10.0	4.0	1.4	8.5	8.6
3/9			1.6	9.5	10.9	10.9	12.7	1.6	10.0	10.0	3.9	1.3	8.6	8.6
	1.3	9.3	1.5	9.0	10.9	10.9	12.7	1.5	10.0	10.0	3.9	1.3	8.6	8.6
	1.3	9.4	1.5	9.5	10.9	11.1	12.1	1.6	9.9	9.9	3.9	1.5	8.6	8.5
3/10			1.4	9.5	11.3	11.4	12.3	1.4	10.5	10.5	4.0	1.6	8.5	8.6
	1.26	9.3	1.4	9.5	11.5	11.4	11.9	1.4	10.5	10.5	4.0	1.5	8.5	8.6
	1.3	9.3	1.4	9.4	10.9	11.0	11.8	1.5	10.0	10.0	4.0	1.4	8.7	8.7
3/11			0.6	9.6	11.0	11.1	11.6	0.8	10.0	10.0	4.0	0.8	8.6	8.6
	1.3	9.5	1.5	9.5	11.2	11.2	10.8	1.4	10.1	10.1	3.1	1.3	8.7	8.7
	1.1	9.4	1.4	9.4	11.2	11.3	10.4	1.3	10.1	10.1	3.0	1.4	8.5	8.6
3/12			1.5	9.6	11.6	11.3	10.6	1.4	10.1	10.1	3.1	1.4	8.9	8.6
	1.2	9.4	1.5	9.6	11.5	11.4	10.6	1.4	10.0	10.0	3.0	1.3	8.7	8.6
	1.3	9.1	1.4	9.6	11.4	11.4	10.9	1.4	10.1	10.1	3.0	1.3	8.6	8.7
3/13			1.4	9.5	11.6	11.4	11.7	1.6	10.1	10.1	3.0	1.5	8.6	8.6
	1.3	9.1	1.4	9.5	11.5	11.4	11.0	1.4	10.1	10.1	3.1	1.3	8.6	8.6
	1.4	9.1	1.4	9.5	11.4	11.4	11.0	1.3	10.1	10.1	3.1	1.4	8.5	8.5
3/14			1.5	9.4	11.2	11.2	11.7	1.5	10.0	10.0	3.0	1.5	8.5	8.5
	1.3	9.2	1.5	9.6	11.3	11.3	12.3	1.6	10.0	10.0	3.0	1.5	8.7	8.7
	1.4	9.1	1.4	11.0	11.5	11.5	11.4	1.4	10.0	10.0	3.0	1.4	8.3	8.3
<b>AVG:</b>	<b>1.3</b>	<b>9.3</b>	<b>1.4</b>	<b>9.5</b>	<b>11.2</b>	<b>11.2</b>	<b>11.6</b>	<b>1.4</b>	<b>10.1</b>	<b>10.1</b>	<b>3.5</b>	<b>1.4</b>	<b>8.6</b>	<b>8.6</b>

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