

# The Dalles Dam Fishway Status Report

10/25/2020

Inspection Period: 10/18-10/24

## 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> 61.0 °F
			<b>Comments:</b> fishways functional	<b>Weekly Average Secchi:</b> 4.9

### 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')	8.7
Entrance weir N2	0	Closed	
PUD Intake differential	0	≤ 0.5'	Damage to north FB index makes data unreliable.

### 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	1.3' ± 0.1'	
Junction pool weir JP6	0	> 7.0'	Average for week = 8.4
East entrance differential	0	1.0' - 2.0'	Average for week = 1.5
Entrance weir E1	0	No criteria	Average for week = No criteria
Entrance weir E2	0	depth (≥ 8')	Average for week = 11.3
Entrance weir E3	0	depth (≥ 8')	Average for week = 11.3
Collection channel velocity	0	1.5 - 4 fps	3.25fps 10/19/2020 Range: 3.91 fps MU 1 to 2.77 fps MU-17
Transportation channel velocity	0	1.5 - 4 fps	2.22 fps, 10/19/2020
North channel velocity	0	1.5 - 4 fps	2.64 fps, 10/19/2020
South channel velocity	0	1.5 - 4 fps	4.77 fps, 10/19/2020
West entrance differential	0	1.0' - 2.0'	Average for week = 1.5
Entrance weir W1	0	depth (≥ 8')	Average for week = 9.4
Entrance weir W2	0	depth (≥ 8')	Average for week = 9.4
Entrance weir W3	0	No criteria	
South entrance differential	0	1.0' - 2.0'	Average for week = 1.4
Entrance weir S1	0	depth (≥ 8')	Average for week = 8.5
Entrance weir S2	0	depth (≥ 8')	Average for week = 8.5

### JUVENILE PASSAGE

Sluiceway operation	0	Units 1, 7, 18	MU8 OOS
Turbine trashrack drawdown	0	<1.5', biwklly	10/19/2020 checked, all in criteria.
Spill volume/pattern	0	1 to 8	Spill closed 9/1/2020.
Turbine Unit Priority	0	per FPP	All available MUs running; OOC due to forced outages
Gatewells	0	Weekly	10/19/2020 fish check, some adult shad MU-22-2 mortality. No salmon seen.

## OTHER ISSUES:

### Unit Outages

Line 1, MU1,2 OOS 10/26/2020 - 2/28/21 for T1 replacement; 1/28/2021  
T10 (MU19 & 20) FOOS through 10/28/2021 due to acetylene levels  
M8 OOS through 11/15/20 overhaul  
MU22 OOS through 11/19/2020 overhaul.  
MU21 OOS 8/3/2020 - 12/17/2020 for Annual & Headcover Upgrade  
T5 OOS 10/27/2020 -10/28/2020 for T5 GSU install re-work

### Maintenance

PUD intake rake out of service due to power track damage. Exploring repair options. Raking with mobile crane as needed.  
Calibration check entrances 10/19, all in criteria. Damage to north FB staff gage giving potential accuracy problems.  
Five of 6 east fishway collection channel dewatering pumps removed for repair/rehab. Work to resume FY21.  
East fishway automation PLC panels installed. All sensor brackets installed. Conduit runs in progress. East entrance operation testing in progress.  
Spillway assessment (MRER); Spillgate 9 trunnion pin included.

### Predators

USDA hazing concluded 7/31. Refer to avian graph tab for bird numbers.  
Green laser use for piscivorous bird hazing testing restarted. Safety concerns, training and documentation addressed. Annual LSO safety audit underway.  
Cormorants foraging forebay near east ladder exit and entrance. Several herons foraging east fishladder.  
Invasive aquatic weeds subsiding at count station pickets. Zebra mussel samples collected 8/31.  
Pikeminnow dam angling concluded w/980 removed. **All invasive bass/walleye by-catch release continues per states gamefish requirements.**

### Research/Construction/Contractors

PSMFC concluded juvenile sampling at PUD 7/31  
Four Peaks fish counting ongoing through 10/31.  
CRITFC lamprey trapping concluded 9/3 . 526 total lamrey captures YTD  
PITAGS north and east fishladder data collection at count stations continues.  
Fish unit breaker replacement completed.  
Fish unit rehab - Phase 1A. Planning operation with AWS backup water supply during construction. On hold.

### Fishway Operations

North and east fish ladders in full operation.

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



# Gull and Cormorant

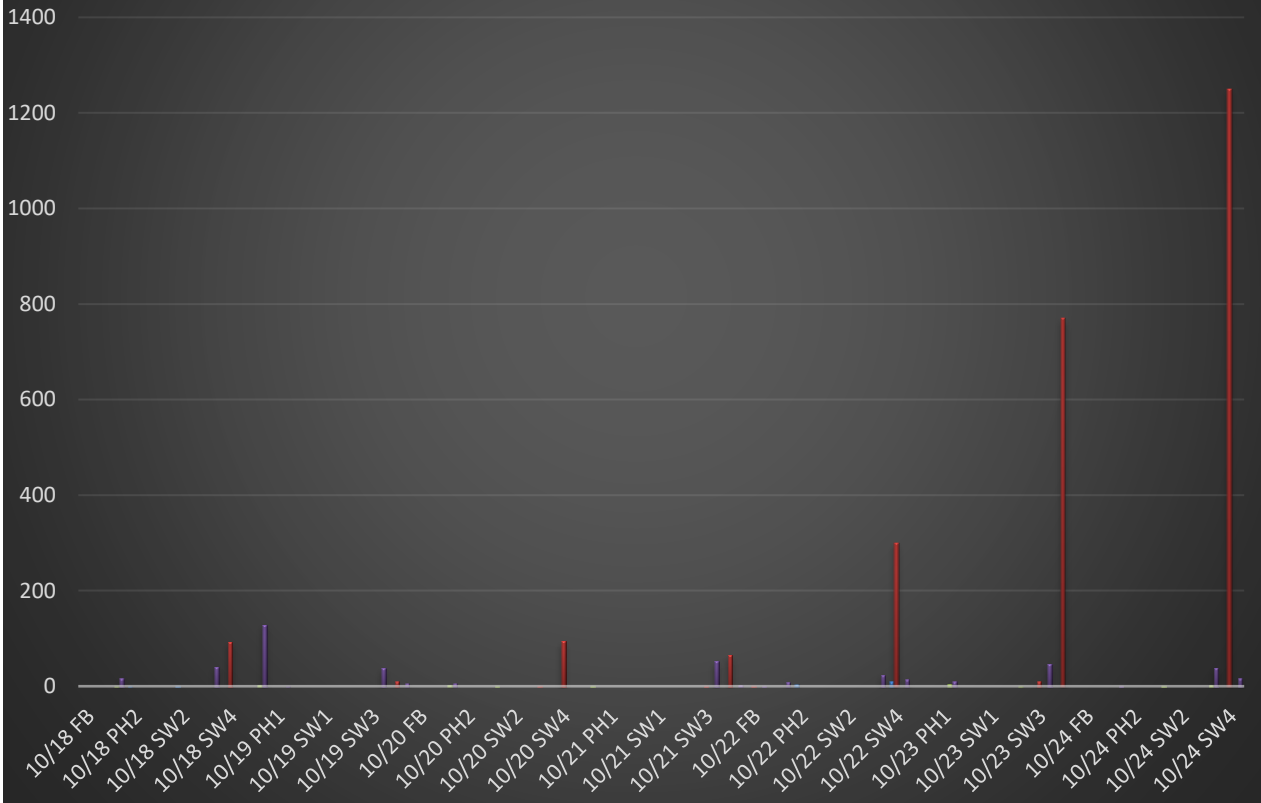
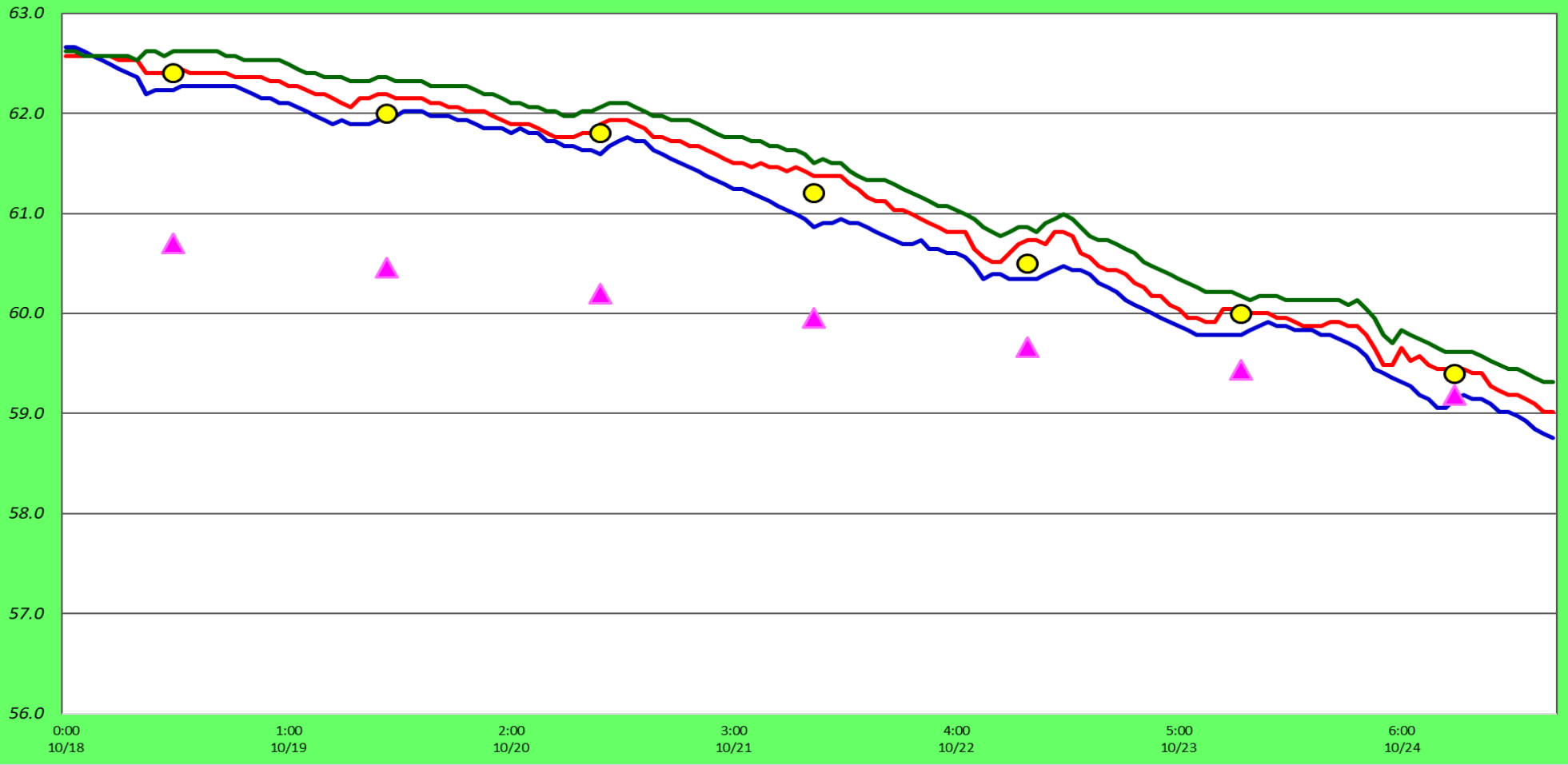


Chart Title

East Count Station North Count Station North Entrance Current USGS daily tailwater average USGS daily tailwater average (2007-2019)



Secchi:		°F
10/18	Sun	62.4
10/19	Mon	62.0
10/20	Tue	61.8
10/21	Wed	61.2
10/22	Thurs	60.5
10/23	Fri	60.0
10/24	Sat	59.4
	AVG	61.0

USGS October

The Dalles Dam Daily Readings and Averages for  
Temperatures, Secchi, Entrances, and Spill

SCADA INSPECTION

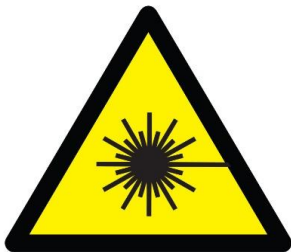
out of criteria

Date:	North Ladder		East Ladder					West Entrance			South Entrance			
	Differential	N1 Depth	East Entrance					Differential	W1	W2	W3	Differential	S1	S2
			Differential	E1 Depth	E2 Depth	E3 Depth	JP 6							
10/18			1.4	5.6	11.6	11.6	7.8	1.5	9.3	9.3	-5.2	1.4	8.5	8.5
	1.3	8.7	1.5	5.0	11.0	11.0	8.6	1.5	9.3	9.3	-4.5	1.3	8.6	8.6
	1.4	8.5	1.6	5.1	11.0	11.0	8.8	1.5	9.4	9.4	-4.3	1.4	8.5	8.5
10/19			1.4	5.1	11.0	11.0	8.2	1.4	9.4	9.4	-4.9	1.5	8.5	8.5
	1.3	8.6	1.4	5.1	10.9	10.9	7.9	1.4	9.4	9.4	-5.2	1.4	8.5	8.5
	1.4	8.5	1.4	5.0	11.0	11.0	8.0	1.5	9.2	9.2	-5.1	1.4	8.6	8.6
10/20			1.6	4.9	11.0	11.0	7.4	1.4	9.5	9.5	-5.4	1.3	8.5	8.5
	1.3	8.5	1.5	5.0	10.9	10.9	7.5	1.4	9.7	9.3	-5.4	1.4	8.5	8.5
	1.2	8.6	1.3	5.1	11.0	11.0	8.0	1.5	9.3	9.3	-5.1	1.4	8.6	8.5
10/21			1.5	5.0	11.1	11.1	8.1	1.5	9.3	9.3	-4.8	1.3	8.4	8.4
	1.3	8.6	1.4	4.9	11.0	11.0	8.0	1.5	9.3	9.3	-5.0	1.3	8.5	8.5
	1.3	8.7	1.5	5.1	11.0	11.0	8.2	1.5	9.2	9.2	-4.9	1.4	8.5	8.5
10/22			1.4	5.0	10.7	10.7	7.7	1.4	9.2	9.2	-5.2	1.3	8.7	8.7
	1.4	8.7	1.4	5.5	11.5	11.5	9.1	1.6	9.3	9.3	-4.1	1.5	8.5	8.5
	1.3	8.8	1.4	4.6	11.6	11.6	8.6	1.5	9.4	9.4	-4.5	1.4	8.5	8.5
10/23			1.7	3.3	11.3	11.3	9.4	1.6	9.0	9.0	-3.9	1.5	8.4	8.4
	1.4	8.9	1.6	3.6	11.8	11.8	9.7	1.1	9.6	9.5	-3.7	1.3	8.5	8.5
	1.3	9.0	1.6	3.6	11.7	11.7	9.4	1.6	9.5	9.5	-3.8	1.5	8.6	8.5
10/24			1.3	3.5	11.7	11.9	8.7	1.6	9.4	9.4	-4.5	1.6	8.3	8.3
	1.2	9.1	1.3	3.5	11.8	11.8	9.1	1.5	9.6	9.6	-4.1	1.5	8.5	8.5
	1.2	9.1	1.4	-1.4	11.7	11.7	9.0	1.5	9.6	9.6	-4.1	1.5	8.5	8.5
<b>AVG:</b>	<b>1.3</b>	<b>8.7</b>	<b>1.5</b>	<b>4.4</b>	<b>11.3</b>	<b>11.3</b>	<b>8.4</b>	<b>1.5</b>	<b>9.4</b>	<b>9.4</b>	<b>-4.7</b>	<b>1.4</b>	<b>8.5</b>	<b>8.5</b>

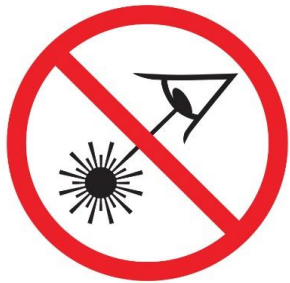
**Fishways are inspected once daily plus one SCADA inspection.**



# **WARNING**



**CLASS 3B LASER  
CONTROLLED AREA**



**AVOID DIRECT  
EYE EXPOSURE**

Warning sign posted at south and north entrance gates per regulation. Use of laser deterrence for bird abatement resumes.