

# The Dalles Dam Fishway Status Report

11/29/2020

Inspection Period: 11/22 - 11/28

## 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: 49.1 °F
			Comments: fishways functional	Weekly Average Secchi: 6.0
<b>NORTH FISHWAY</b>				
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'	1.2	
Entrance weir N1	0	depth (≥ 8')	9.4	
Entrance weir N2	0	Closed		
PUD Intake differential	0	≤ 0.5'	TDM unable to remove significant floating weeds buildup. North FB index data unreliable.	
<b>EAST FISHWAY</b>				
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 = 10.2	
East entrance differential	0	1.0' - 2.0'	Average for week = 1.4	
Entrance weir E1	0	No criteria	Average for week = No criteria	
Entrance weir E2	0	depth (≥ 8')	Average for week = 11.7	
Entrance weir E3	0	depth (≥ 8')	Average for week = 11.7	
Collection channel velocity	0	1.5 - 4 fps	2.94fps 11/26/2020	Range: Data unavailable
Transportation channel velocity	0	1.5 - 4 fps	2.51 fps, 11/26/2020	
North channel velocity	0	1.5 - 4 fps	3.12 fps, 11/26/2020	
South channel velocity	0	1.5 - 4 fps	4.24fps, 11/26/2020	
West entrance differential	0	1.0' - 2.0'	Average for week = 1.4	
Entrance weir W1	0	depth (≥ 8')	Average for week = 10.4	
Entrance weir W2	0	depth (≥ 8')	Average for week = 10.4	
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 = 8.5	
Entrance weir S2	0	depth (≥ 8')	Average for week = 8.5	
<b>JUVENILE PASSAGE</b>				
Sluiceway operation	0	Units 3, 7, 18	MU8 OOS and MU1-2 OOS	
Turbine trashrack drawdown	0	<1.5', biwklly	11/26/2020 checked, all in criteria.	
Spill volume/pattern	0	1 to 8	Spill closed 9/1/2020.	
Turbine Unit Priority	21	per FPP	All available MUs running; OOC due to forced outages	
Gatewells	0	Weekly	11/26/2020 fish check, no fish mortality seen.	

## OTHER ISSUES:

### Unit Outages

Line 1, MU1,2 OOS 10/26/2020 - 2/28/21 for T1 replacement  
T10 (MU19 & 20) FOOS through 10/28/2021 due to acetylene levels  
M8 OOS through 11/24/20 overhaul  
MU21 OOS through 12/3/2020 for Annual & Headcover Upgrade  
MU9 & MU10 OOS through 11/24/2020 for T5 C phase Cooling Repairs, drain valve replacement & Doble Testing  
SSO1 OOS through 1/14/21 for Overhaul and DC Governor oil Pump Install

### Maintenance

PUD intake rake out of service due to power track damage. Exploring repair options. Attempting to rake with mobile crane.  
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. Programming underway. Completion target end Jan.  
Spillway assessment (MRER); Spillgate 9 trunnion pin included.  
Calibration checks on fishway entrances and exits 11/26/20, all within criteria.

### Predators

Refer to avian graph tab for bird numbers.  
Green laser use for piscivorous bird hazing testing continues. Effective tool for roosting birds during low light.  
Cormorants foraging forebay near east ladder exit and entrance. 1 heron foraging east fishladder. 11/24, 3 hours video observation.  
Invasive aquatic weeds significant at count station pickets and north exit.  
Pikeminnow dam angling concluded w/980 removed. **All invasive bass/walleye by-catch release continues per states gamefish requirements.**

### Research/Construction/Contractors

District Dive office to ROV east fishway diffuser grating, AWS and east exit trashracks for condition 12/28-29  
AWS intake trashrack - NWP investigating solution for debris plugging issue.  
PITAGS north and east fishladder data collection at count stations continues.  
Fish unit rehab - Phase 1A. Planning operation with AWS backup water supply during construction. On hold.  
Plans underway to incorporate ODFW sturgeon tagging during upcoming fish ladder dewaterings

### Fishway Operations

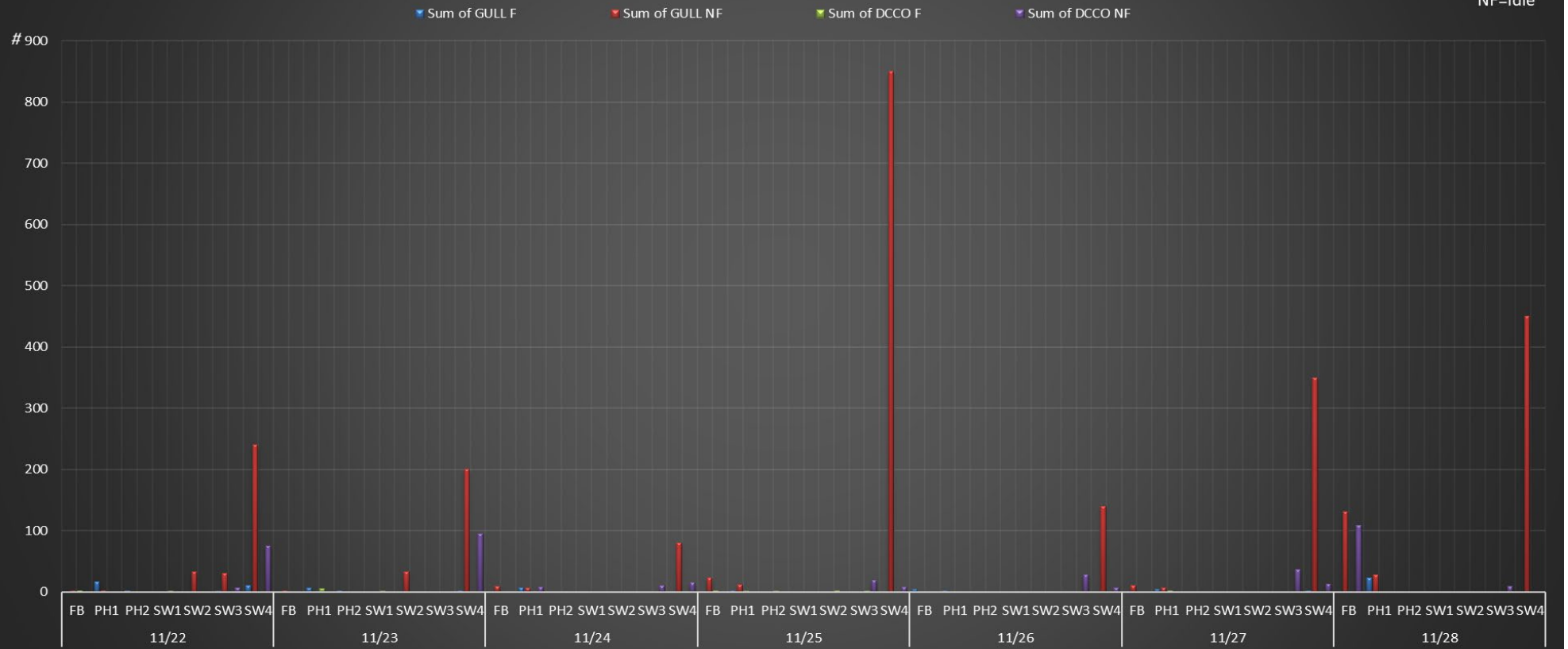
North and east fish ladders in full operation.

Approved by: Ron Twiner, Operation Project Manager, The Dalles Dam



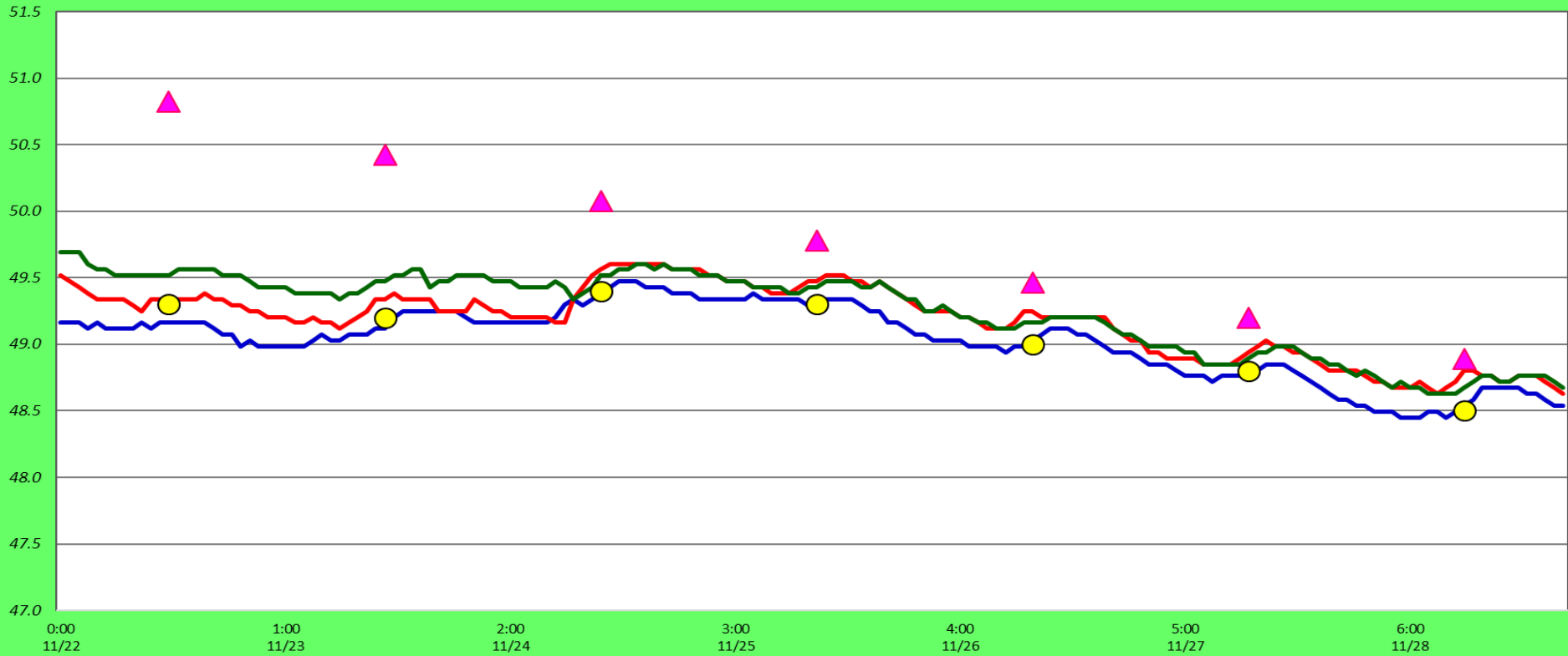
# Avian Activity

F=Forage  
NF=Idle



# Adult Fish Ladder-River Temperatures

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



Secchi:		°F
11/23	Sun	49.3
11/23	Mon	49.2
11/24	Tue	49.4
11/25	Wed	49.3
11/26	Thurs	49.0
11/27	Fri	48.8
11/28	Sat	48.5
	AVG	49.1

USGS Nov

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

SCADA INSPECTION

out of criteria

Date:	North Ladder		East Ladder											
			East Entrance					West Entrance				South Entrance		
	Differential	N1 Depth	Differential	E1 Depth	E2 Depth	E3 Depth	JP 6	Differential	W1	W2	W3	Differential	S1	S2
11/22			1.3	7.5	12.1	12.0	11.5	1.4	11.0	11.0	78.5	1.4	8.6	8.6
	1.3	9.5	1.4	7.5	12.0	12.0	11.9	1.5	10.8	10.8	78.5	1.6	8.6	8.6
	1.3	9.7	1.4	7.4	12.1	12.1	11.8	1.6	10.9	10.8	78.5	1.6	8.5	8.6
11/23			1.4	7.5	12.1	12.1	10.7	1.4	10.9	10.9	78.5	1.3	8.6	8.6
	1.1	9.7	1.4	7.4	12.0	12.0	11.2	1.5	10.7	10.8	78.5	1.6	8.6	8.6
	1.2	9.7	1.4	5.6	12.0	12.0	11.0	1.4	10.8	10.8	78.5	1.6	8.4	8.5
11/24			1.6	5.7	12.0	12.0	9.7	1.3	10.8	10.8	78.5	1.6	8.6	8.6
	1.3	9.5	1.3	5.5	12.0	12.0	10.8	1.4	10.8	10.8	78.5	1.6	8.5	8.5
	1.3	9.4	1.6	6.6	11.5	11.6	11.0	1.5	10.8	10.8	78.5	1.5	8.6	8.6
11/25			1.4	6.9	11.5	11.5	10.1	1.3	10.8	10.8	78.5	1.5	8.6	8.6
	1.2	9.2	1.4	7.0	11.4	11.4	10.2	1.4	10.9	10.9	78.5	1.5	8.5	8.5
	1.3	9.2	1.4	6.9	11.5	11.5	10.5	1.4	10.6	10.6	78.5	1.6	8.5	8.5
11/26			1.2	7.0	11.4	11.5	8.9	1.2	10.6	10.6	78.5	1.5	8.5	8.5
	1.1	9.2	1.4	5.0	11.5	11.6	9.1	1.5	9.5	9.5	78.5	1.4	8.6	8.5
	1.2	9.2	1.5	5.1	11.6	11.5	9.4	1.6	9.5	9.5	78.5	1.6	8.5	8.4
11/27			1.6	5.1	11.6	11.6	9.7	1.8	9.6	9.6	78.5	1.6	8.6	8.6
	1.2	9.3	1.5	5.0	11.4	11.4	9.6	1.3	10.0	10.0	78.5	1.6	8.5	8.5
	1.2	9.2	1.5	4.9	11.5	11.5	9.5	1.5	9.9	9.9	78.5	1.6	8.4	8.4
11/28			1.4	5.0	11.6	11.6	8.7	1.3	10.1	10.1	78.5	1.4	8.5	8.5
	1.3	9.2	1.5	4.9	11.5	11.5	10.0	1.6	9.9	9.9	78.5	1.6	8.6	8.6
	1.2	9.3	1.6	5.0	11.5	11.5	9.6	1.5	10.0	10.0	78.5	1.6	8.4	8.4
<b>AVG:</b>	<b>1.2</b>	<b>9.4</b>	<b>1.4</b>	<b>6.1</b>	<b>11.7</b>	<b>11.7</b>	<b>10.2</b>	<b>1.4</b>	<b>10.4</b>	<b>10.4</b>	<b>78.5</b>	<b>1.5</b>	<b>8.5</b>	<b>8.5</b>

Fishways are inspected once daily plus one SCADA inspection.



Heron fishing - no success  
Western gulls feeding on presumed juvenile shad