

The Dalles Dam Fishway Status Report

12/20/2020

Inspection Period: 12/13 - 12/19

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: 44.9 °F
			Comments: fishways functional	Weekly Average Secchi: 5.0

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')	9.1
Entrance weir N2	0	Closed	
PUD Intake differential	0	≤ 0.5'	TDM unable to remove significant floating weeds buildup. North FB index data unreliable.

EAST FISHWAY

Exit differential	Fishway closed	≤ 0.5'	
Removable weirs 154-157		Per forebay	
Weir 158-159 differential		1.1' ± 0.1'	
Count station differential		≤ 0.3'	
153 Weir crest depth		1.3' ± 0.1'	
Junction pool weir JP6		> 7.0'	Average for week = 0.0
East entrance differential		1.0' - 2.0'	Average for week = 0.0
Entrance weir E1		No criteria	Average for week = No criteria
Entrance weir E2		depth (≥ 8')	Average for week = 0.0
Entrance weir E3		depth (≥ 8')	Average for week = 0.0
Collection channel velocity		1.5 - 4 fps	2.94fps 11/26/2020 Range: Data unavailable
Transportation channel velocity		1.5 - 4 fps	2.51 fps, 11/26/2020
North channel velocity		0	1.5 - 4 fps 3.22 fps, 12/6/2020
South channel velocity	Fishway closed	1.5 - 4 fps	4.24fps, 11/26/2020
West entrance differential		1.0' - 2.0'	Average for week = 0.0
Entrance weir W1		depth (≥ 8')	Average for week = 0.0
Entrance weir W2		depth (≥ 8')	Average for week = 0.0
Entrance weir W3		No criteria	
South entrance differential		1.0' - 2.0'	Average for week = 0.0
Entrance weir S1		depth (≥ 8')	Average for week = 0.0
Entrance weir S2		depth (≥ 8')	Average for week = 0.0

JUVENILE PASSAGE

Sluiceway operation	0	Units 3, 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:

Current Unit Outages

- Line 1, MU1, & MU2 OOS for T1 replacement MU2 Overhaul and MU1 Annual through 2/28/2021
- T10 (MU19 & 20) FOOS through 10/28/2021 due to acetylene levels
- SSO1 OOS for Overhaul and DC Governor oil Pump Install 0630 11/2/2020 - 1700 1/14/2021
- FU1 OOS 0001 12/1/2020 – 1700 1/21/2021 for Overhaul & TA Vault Demo
- FU2 OOS 0001 12/1/2020 – 1700 1/21/2021 for Annual & TA Vault Demo
- T6 OOS 0630 12/14/2020 - 1700 12/21/2020 for GSU Re-Work, Oil Leak Repairs

Maintenance

Repairing wind damaged debris guard for north fishladder exit.

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 and north fishway automation PLC panels installed. All sensors installed. Programming underway. Completion target end Jan.

Spillway assessment (MRER); Spillgate 9 trunnion pin included.

Calibration checks on North fishway entrance and exits 12/11/20, all within criteria.

Predators

Moderate/high gull numbers. Refer to avian graph tab for bird numbers.

Green laser use for piscivorous bird hazing testing continues. Effective on roosting birds during low light.

Invasive aquatic weeds significant at north exit.

Pikeminnow dam angling resumes next May. **All invasive bass/walleye by-catch release to continue per state requirement.**

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 - EDR funded for FY21 to investigate solution for debris plugging issue.

PITAGS north and east fishladder data collection at north count stations continues. East antenna annual maintenance this month during dewatering.

Fish unit rehab - Phase 1A. Planning operation with AWS backup water supply during construction on hold.

Fishway Operations

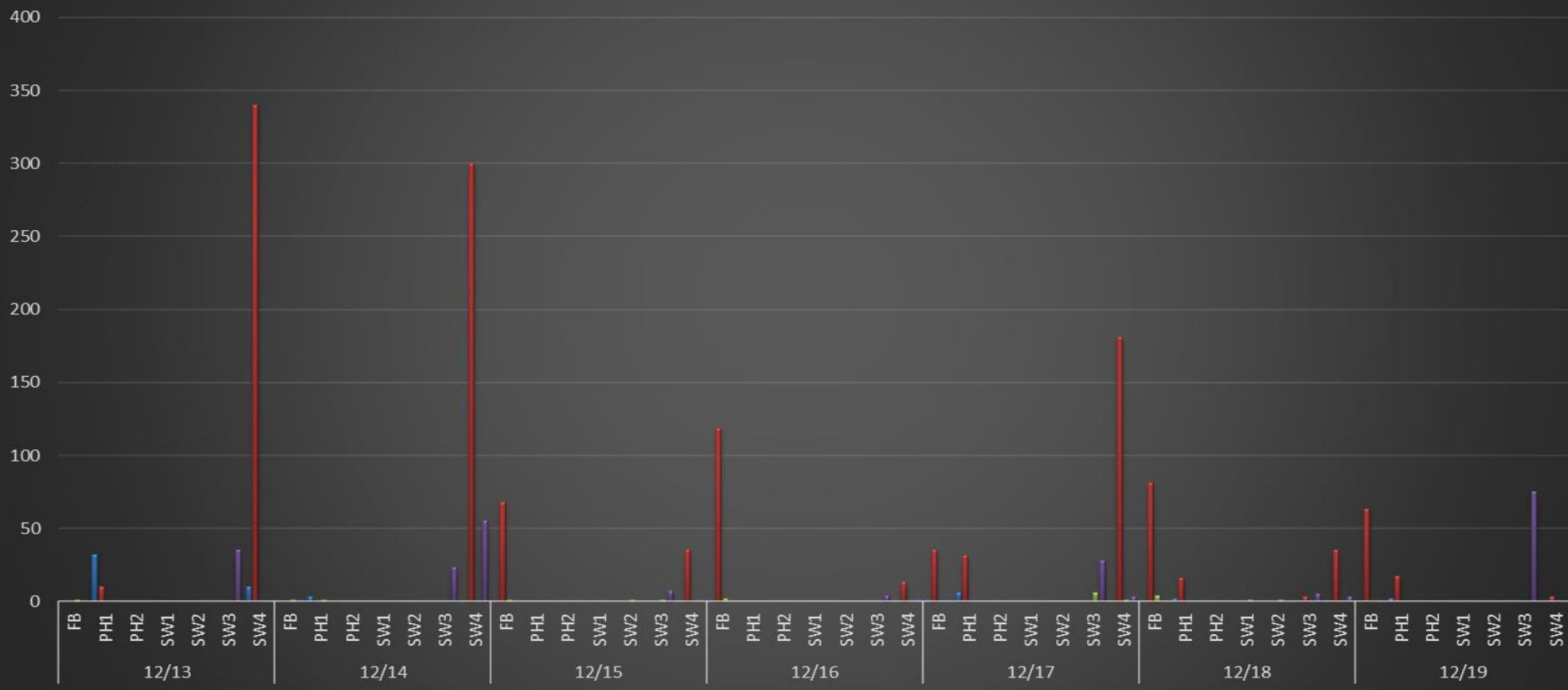
North fish ladder in full operation-East ladder dewatered 12/2

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

Avian Activity

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

F=Forage
 NF=Idle



Secchi:		°F	
12/13	5.0	Sun	45.3
12/14	5.0	Mon	45.0
12/15	5.0	Tue	44.9
12/16	5.0	Wed	44.8
12/17	5.0	Thurs	44.7
12/18	5.0	Fri	44.7
12/19	5.0	Sat	44.7
	5.0	AVG	44.9

USGS Dec

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
12/13	1.3	9.2												
12/14	1.3	9.3												
12/15	1.3	9.1												
12/16	1.4	9.0												
12/17	1.3	9.2												
12/18	1.4	9.0												
12/19	1.3	9.2												
AVG:	1.3	9.1												

East Ladder dewatered

Fishways are inspected once daily plus one SCADA inspection.