

The Dalles Dam Fishway Status Report

3/31/2018

Inspection Period: 03/25/2018-03/31/2018

THE DALLES DAM



The Dalles Project-Fisheries
P.O. Box 564
The Dalles, OR 97058-9998
Phone: 541-506-3800

The Dalles Dam	Inspections Out of Criteria	Criteria Limit	Total Number of Inspections:	21	Temperature:	44.7 °F
			Comments	Secchi:	3.6	feet
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')	9.5			
Entrance weir N2	0	Closed				
PUD Intake differential	0	≤ 0.5'	0			
EAST FISHWAY						
Exit differential	0	≤ 0.5'				
Removable weirs 154-157	12	Per forebay			Weir 156 drive failure. Maintenance repairing.	
Weir 158-159 differential	9	1.0' ± 0.1'	<0.9			
Count station differential	0	≤ 0.3'				
Weir crest depth	0	1.0' ± 0.1'				
Junction pool weir JP6	0	0.0				
East entrance differential	0	1.0' - 2.0'	1.5			
Entrance weir E1	0	No criteria				
Entrance weir E2	0	depth (≥ 8')	12.4			
Entrance weir E3	0	depth (≥ 8')	12.4			
Collection channel velocity	0	1.5 - 4 fps	2.8 fps			
Transportation channel velocity	0	1.5 - 4 fps	2.6 fps			
North channel velocity	0	1.5 - 4 fps	2.7 fps			
South channel velocity	0	1.5 - 4 fps	3.8 fps			
West entrance differential	0	1.0' - 2.0'	1.5			
Entrance weir W1	0	depth (≥ 8')	8.2			
Entrance weir W2	0	depth (≥ 8')	8.2			
Entrance weir W3	0	No criteria				
South entrance differential	0	1.0' - 2.0'	1.4			
Entrance weir S1	0	depth (≥ 8')	8.5			
Entrance weir S2	0	depth (≥ 8')	8.5			
JUVENILE PASSAGE						
Sluiceway operation	0	Units 1, 21	1-2, 1-3, 21-1, 21-2 and endgate open, 21-1 closed 3/30			
Turbine trashrack drawdown	0	<1.5', wkly	range: 0.1-0.8'			
Spill volume/pattern	0	None				
Turbine Unit Priority	0	per FPP	MU4 FOOS			
Turbine 1% Efficiency	0	per FPP				

OTHER ISSUES:

Birds and Sea lions:

gull and cormorant numbers and activity increasing. One sea lion spotted.

Operations

PUD performed a load reject test 3/20/18 to review actual plant responses. Turbine tripped at 0900 and bypass failed to open. Operator opened bypass at ~1000. PUD correcting the automation system which was supposed to open bypass. They plan to test the system the week of Apr 2. North and east fishways in full operation. Sluiceway open with 4 gate operation. Six gate operation will start Apr 1.

Current Outages;

MU4 OOS 0001 3/19/2018 - 1700 4/5/2018 for Annual, Blade Seal Replacement and T2 Doble testing
MU5 Forced OOS 1135 3/22/2018 - 1700 4/17/2018 for blade seal inspection .
MU9 OOS 0001 3/5/2018 - 1700 4/12/2018 for Annual
MU10 OOS 0730 3/5/2018 - 1700 5/3/2018 for O/H
MU15 Forced OOS through 1700 6/29/2019 GSU transformer replacement
MU16 Forced OOS through 1700 6/29/2019 for GSU transformer, Exciter, Head Cover Upgrade & Strainer
MU17 OOS 0630 9/11/2017 - 1700 4/12/2018 for O/H
MU18 OOS 0630 1/8/2018 - 1700 4/12/2018 for O/H & Head cover upgrade
MU19 Forced OOS 1708 2/12/2018 - 1700 5/31/2018 for transformer acetylene production
MU20 Forced OOS 1708 2/12/2018 - 1700 5/31/2018 for transformer acetylene production

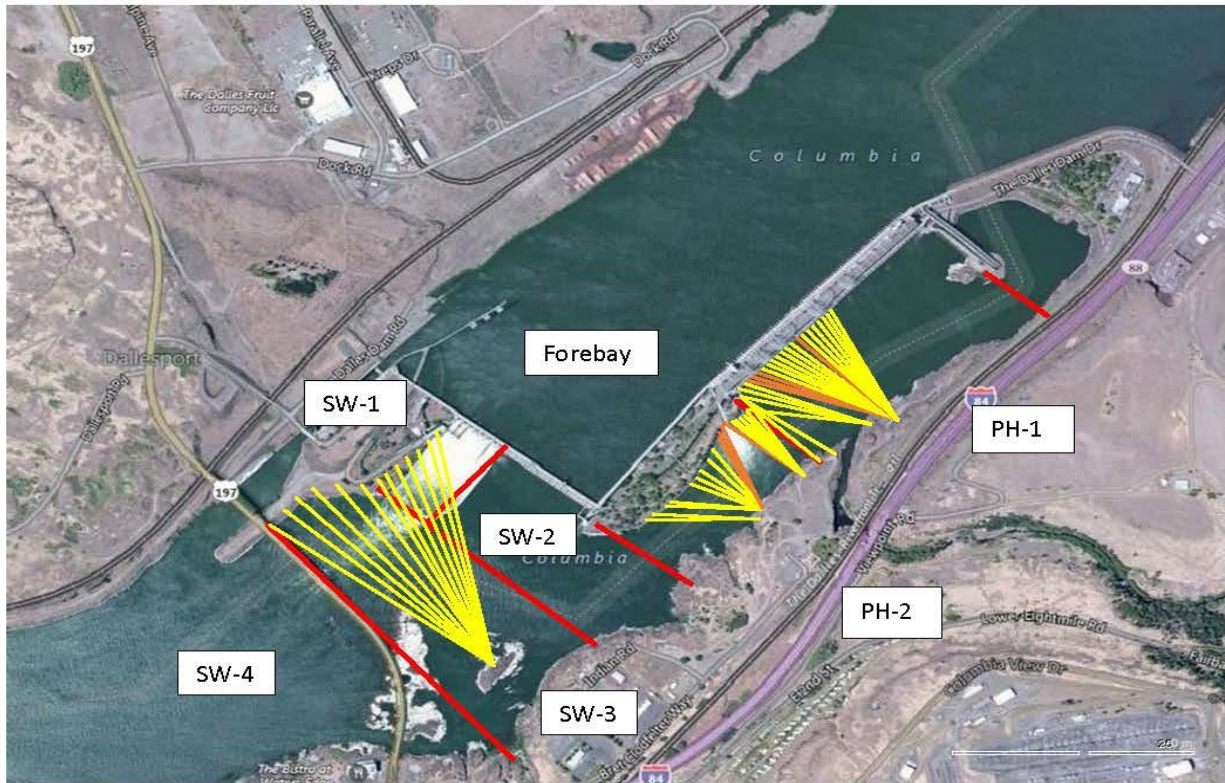
Maintenance;

Adjustable weir 157 bottom dragged on water surface, TDE corrected
East exit weir 156 malfunction addressed and corrected
East exit weir electrical panel FCQ7 installation completed. Demo of old FCQ7 near complete.
East exit oil boom anchor installation with John Day boat. Date to be determined.
Collection channel stuck dewatering pump removed. Repair underway.
Long term repair items; 154 -157 rehab/weir wheel replace, diffuser valve overhaul (rehab and decommission).
Fish related /non-fish funded items; Spillway assessment, spillway crane replace and spillgate 9. All awaiting funding.
All spillway items on Critical Infrastructure. Spillgate 9 on large cap list, projected for 2022. Charter in place for comprehensive spillway assessment.

Research/Construction/Contractors:

AWS construction - Construction progress continues. Commissioning testing date TBD
Fish Counters - Started April 1
Pikeminnow dam angling - To resume with higher water temps. Highest walleye by-catches 2017 do date. **Release of non native predators review at FPOM.**
ODFW resumed monthly fishway inspections. Annual report for 2017 showed no deficiencies.
Lamprey minor mods - Rounded entrance weir caps installed south, west and north entrances. East next winter.
Lamprey counterbalance hoist being negotiated with project and end-user to expedite trapping
Railroad track removal - Tailrace deck rail completed.
Fish unit breaker replace - Prep work in progress. Installation delayed to next winter outage.
Fish unit rehab - Development plan continues.
Transformer replacement - Install start delayed. Date to be determined.

Approved by: Ron Twiner
Operation Project Manager The Dalles Dam



Red lines = avian zones

Yellow lines = current wires

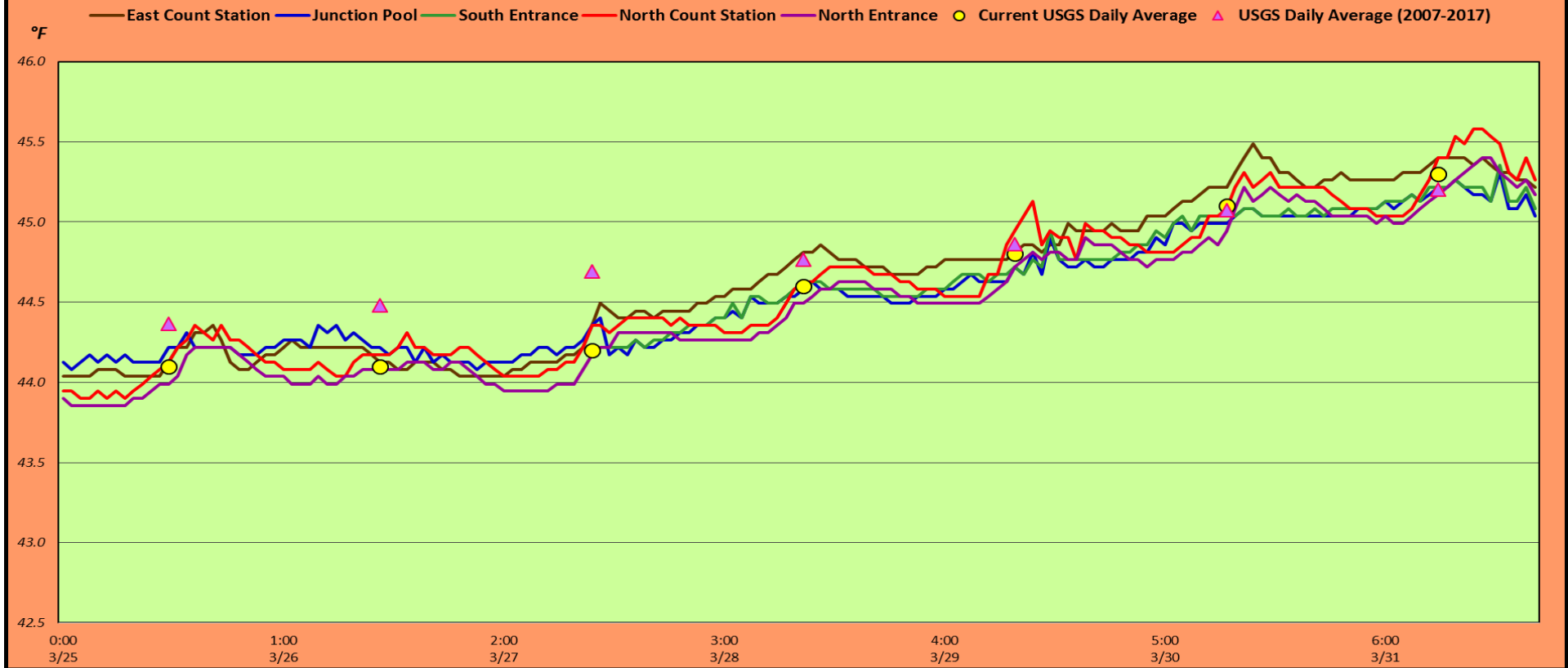
Orange lines = down or missing wires

2018 Piscivorous Bird Counts

2018 Piscivorous Bird Counts																				
Date	Observer	AM/PM	Zone	F=foraging, NF=non-foraging												Total birds in zone	Notes			
				Gull		Cormorant		Caspian tern		Grebe		Pelican		Other						
				F	NF	F	NF	F	NF	F	NF	F	NF	F	NF					
3/25	JWR	AM	FB	0	1	1	16	0	0	0	0	0	0	0	0	0	18			
			PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	
			PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
			SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
			SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
			SW3	0	0	0	4	0	0	0	0	0	0	0	0	0	0		0	4
3/26	JWR	PM	FB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
			PH1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
			PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
			SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
			SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
			SW3	0	0	0	26	0	0	0	0	0	0	0	0	0	0	0		26
3/27	JWR	AM	FB	0	0	0	27	0	0	0	0	0	0	0	0	0	0	27		
			PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
			PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
			SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
			SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
			SW3	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0		2
3/28	JWR	PM	FB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
			PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
			PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
			SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
			SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
			SW3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0		1
3/29	JED	AM	FB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
			PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
			PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
			SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
			SW2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0		1
			SW3	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0		2
3/30	CEA	PM	FB	1	0	2	0	0	0	0	0	0	0	0	0	0	0	3	Overcast , breezy	
			PH1	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3		
			PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
			SW1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1		
			SW2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1		
			SW3	0	0	1	17	0	0	0	0	0	0	0	0	0	0	18		
3/31	CEA	AM	FB	0	0	0	41	0	0	0	0	0	0	0	0	0	41	Overcast, calm Osprey w/ fish N. ladder BLHE		
			PH1	0	1	0	0	0	0	0	0	0	0	0	0	0	1			
			PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	
			SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	
			SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	
			SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	

Key: BAEA = Bald Eagle; GBHE = Great Blue Heron; COME = Common Merganser

The Dalles Dam Adult Fish Ladder(s) River/Water Temperatures



		USGS:	USGS river temp
Secchi:		Temperatures	
3/25	4.0	Sun	44.1
3/26	4.0	Mon	44.1
3/27	4.0	Tue	44.2
3/28	3.5	Wed	44.6
3/29	3.5	Thurs	44.8
3/30	2.5	Fri	45.1
3/31	3.5	Sat	45.3
	3.6	AVG	44.6

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

= Out of criteria

Date:	North Ladder			East Ladder										
	North Entrance		Differential	East Entrance				West Entrance			South Entrance			
	Differential	N1 Depth		E1 Depth	E2 Depth	E3 Depth	JP 6	Differential	W1 Depth	W2 Depth	W3 Depth	Differential	S1 Depth	S2 Depth
3/25	SCADA		1.4		12.1	12.1	11.9	1.3	8.3	8.3		1.4	8.7	8.7
	1.2	9.4	1.6		11.9	11.9	11.7	1.4	8.3	8.3		1.5	8.3	8.3
	1.2	9.5	1.6		11.9	11.9	11.7	1.4	8.3	8.3		1.5	8.3	8.3
3/26			1.8		11.9	11.9	13.0	1.6	8.2	8.2		1.6	8.3	8.3
	1.3	9.4	1.4		12.4	12.4	12.5	1.4	8.2	8.2		1.5	8.4	8.4
	1.3	9.6	1.5		12.4	12.4	12.3	1.4	8.3	8.3		1.4	8.6	8.6
3/27			1.5		12.5	12.5	12.9	1.5	8.3	8.3		1.5	8.5	8.5
	1.3	9.4	1.5		12.5	12.5	12.8	1.4	8.3	8.3		1.4	8.5	8.5
	1.3	9.5	1.6		12.6	12.6	13.1	1.6	8.2	8.1		1.5	8.4	8.4
3/28			1.6		12.5	12.5	12.6	1.6	8.2	8.2		1.5	8.5	8.5
	1.4	9.3	1.5		12.5	12.5	12.9	1.6	8.1	8.1		1.4	8.7	8.5
	1.3	9.5	1.5		12.8	12.8	13.2	1.7	8.3	8.3		1.4	8.7	8.7
3/29			1.6		12.4	12.6	12.4	1.7	8.2	8.2		1.5	8.6	8.6
	1.3	9.5	1.6		12.3	12.5	12.6	1.6	8.2	8.2		1.6	8.4	8.4
	1.4	9.5	1.6		11.7	12.4	12.1	1.7	8.1	8.1		1.3	8.7	8.7
3/30			1.4	12.5	12.6	11.6	1.6	8.2	8.2	1.4	8.6	8.6		
	1.2	9.5	1.4	12.5	12.6	11.6	1.5	8.2	8.2	1.4	8.5	8.5		
	1.3	9.4	1.4	12.4	12.5	11.5	1.5	8.2	8.2	1.4	8.5	8.5		
3/31			1.4	12.6	12.5	11.4	1.6	8.3	8.3	1.3	8.6	8.6		
	1.2	9.4	1.5	12.5	12.4	11.5	1.6	8.2	8.2	1.5	8.4	8.4		
	1.3	9.5	1.5	12.6	12.5	11.7	1.6	8.2	8.2	1.4	8.6	8.6		
AVG:	1.3	9.5	1.5		12.4	12.4	12.2	1.5	8.2	8.2		1.4	8.5	8.5

Fishways are inspected twice daily plus one SCADA inspection.



AWS 10' valve room progress. The halo means its close to the end.