

The Dalles Dam Fishway Status Report

3/3/2018

Inspection Period: 02/25/2018-03/03/2018

THE DALLES DAM



US Army Corps
of Engineers
Portland District

The Dalles Project-Fisheries
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The Dalles Dam	Inspections Out of Criteria	Criteria Limit	Total Number of Inspections:	10	Temperature:	38.7 °F
			Comments		Secchi:	4.0 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')	10.5			
Entrance weir N2	0	Closed				
PUD Intake differential	0	≤ 0.5'				
EAST FISHWAY Out of service Dec1 - NLT 03/15						
Exit differential	0	≤ 0.5'				
Removable weirs 154-157	0	Per forebay				
Weir 158-159 differential	0	1.0' ± 0.1'				
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'				
Entrance weir E1	0	No criteria				
Entrance weir E2	0	depth (≥ 8')				
Entrance weir E3	0	depth (≥ 8')				
Collection channel velocity	0	1.5 - 4 fps				
Transportation channel velocity	0	1.5 - 4 fps				
North channel velocity	0	1.5 - 4 fps				
South channel velocity	0	1.5 - 4 fps				
West entrance differential	0	1.0' - 2.0'				
Entrance weir W1	0	depth (≥ 8')				
Entrance weir W2	0	depth (≥ 8')				
Entrance weir W3	0	No criteria				
South entrance differential	0	1.0' - 2.0'				
Entrance weir S1	0	depth (≥ 8')				
Entrance weir S2	0	depth (≥ 8')				
JUVENILE PASSAGE						
Sluiceway operation	0	Units 1, 8, 18				
Turbine trashrack drawdown	0	<1.5', wkly	range: 0.1-0.8'			
Spill volume/pattern	0					
Turbine Unit Priority	0	per FPP	MU 13-16 oos 13 RTS 12/20			
Turbine 1% Efficiency	0	per FPP				

OTHER ISSUES:

Birds and Sea lions:

High gull numbers near The Dalles Marina.

Hazing plan; USDA on site Apr15 - Jul30, 14 hrs/day. Boat hazing 8 hrs/day, with increase during peak spring outmigration period.

Use of lethal for controlling predation by gulls being investigated by NWD legal.

Operations

North fishway in service

East fishway out of service through Mar 8 due to AWS construction delay.

Current Outages;

T8 (MU15 & MU16) out for transformer failure. Transformer replacement 6/28/18.

MU17 and MU18 out for overhaul. Return 4/26/18.

MU19 and MU20 out of service due to gassing. 5/31/18.

MU9 out for annual maintenance.

Fish unit 1 and 2 and east fishladder out 12/1/17 for AWS construction. Return 3/8/18.

Navlock outage 3/3 - 3/25/18 for annual maintenance. No fish found in upstream gate pool.

Maintenance;

East exit weir electrical panel FCQ7 installation completed. Demo of old FCQ7 near complete.

All fishway maintenance completed in prep for water up.

East exit oil boom anchor installation with John Day boat. Date to be determined.

Collection channel diffuser permanent closure start delayed until next winter outage.

East exit 155, 156, 158 weir gearboxes rehabbed and reinstalled. Electrical hookup complete.

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:

Fish Counters - Normandeau video review counting through the winter.

Pikeminnow dam angling - Done for season with a total catch at 1776. Highest invasive walleye by-catches do date. **All non-native predators are released.**

AWS construction - Construction progress continues. Commissioning testing Mar 31.

Lamprey minor mods - Rounded entrance weir caps on sight. Working on attaching to west weirs. South and north to follow.

Railroad track removal - Tailrace deck rail removal approx. half completed.

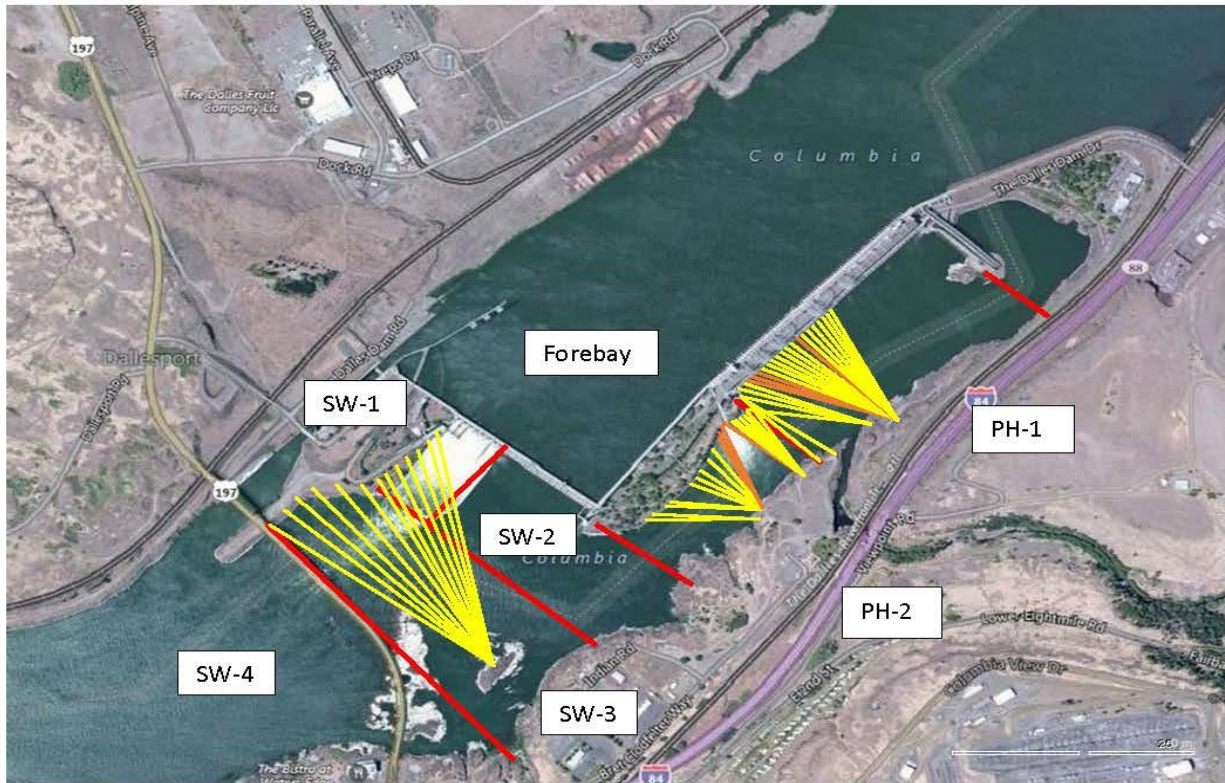
Fish unit breaker replace.- Work in progress. Completion Feb18, 2018. Two weeks commission testing required.

Fish unit rehab - Phase 1A report Jan 2018. Award 2020. Completion 2022.

Transformer replacement - Install start May 2018.

Approved by: Ron Twiner

Operation Project Manager The Dalles Dam



Red lines = avian zones

Yellow lines = current wires

Orange lines = down or missing wires

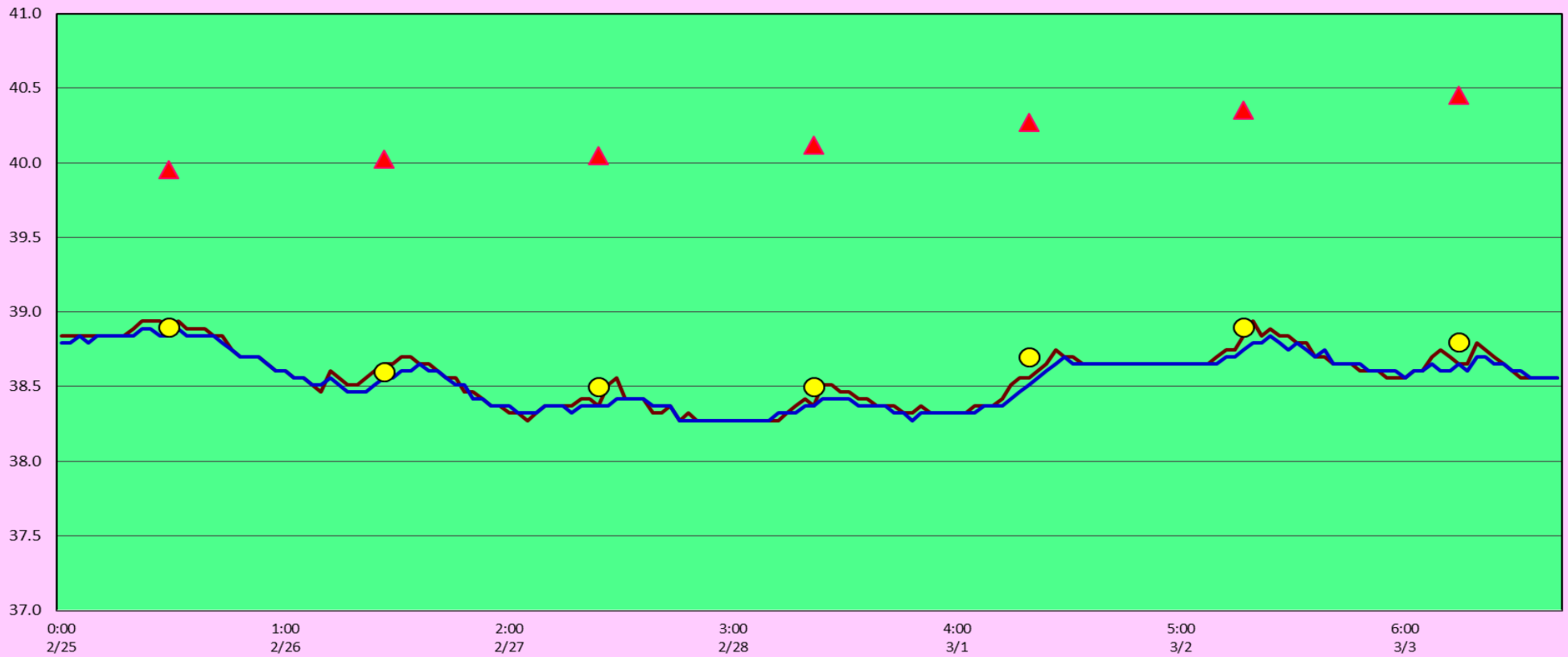
2018 Piscivorous Bird Counts

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		
2/25	JWR	AM	FB	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
			PH2	0	0	0	0	0	0	0	0	0	0	0	0	1	1
			SW1	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
			SW3	0	0	0	2	0	0	0	0	0	0	0	0	0	2
2/26	CEA	AM	FB	4	0	0	0	0	0	0	0	0	0	1	1	6	
			PH1	1	0	0	0	0	0	0	0	0	0	0	1	2	
			PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	
			SW1	0	0	0	0	0	0	0	0	0	0	2	0	2	
			SW2	0	0	0	0	0	0	0	0	0	0	1	0	1	
			SW3	0	0	0	15	0	0	0	0	0	0	0	0	0	15
2/27	JWR	AM	FB	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	
			PH2	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	
			SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	
			SW3	0	1	0	5	0	0	0	0	0	0	0	0	0	6
2/28	JED	PM	FB	1	0	0	0	0	0	0	0	0	0	0	0	1	
			PH1	0	0	0	0	0	0	0	0	0	0	0	1	1	
			PH2	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	
			SW2	0	0	0	0	0	0	1	0	0	0	0	0	1	
			SW3	0	0	0	15	0	0	0	0	0	0	0	0	0	15
3/1	JED	AM	FB	1	0	2	0	0	0	0	0	0	0	0	0	3	
			PH1	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	2	2	
			SW1	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	
			SW3	0	0	0	5	0	0	0	0	0	0	0	0	0	5
3/2	JED	PM	FB	3	170	0	0	0	0	0	0	0	0	0	0	173	
			PH1	1	0	1	0	0	0	0	0	0	0	0	0	2	
			PH2	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	
			SW2	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	
3/3	JED	AM	FB	8	60	0	20	0	0	0	0	0	0	0	0	88	
			PH1	2	0	1	0	0	0	0	0	0	0	0	1	4	
			PH2	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	
			SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	
			SW3	0	0	0	10	0	0	0	0	0	0	0	0	0	10

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

The Dalles Dam North Fish Ladder River/Water Temperatures

— North Count Station — North Entrance ● Current USGS Daily Average ▲ USGS Daily Average (2007-2017)



USGS: Lower Columbia River Temperature Report for February 2018

	Secchi:		Temperatures
2/25	3.5	Sun	38.9
2/26	4.0	Mon	38.6
2/27	4.5	Tue	38.5
2/28	4.0	Wed	38.5
3/1	4.0	Thurs	38.7
3/2	4.0	Fri	38.9
3/3	4.0	Sat	38.8
	4.0	AVG	38.7

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

= Out of criteria

Date:	North Ladder		East Ladder										
	North Entrance		East Entrance					West Entrance			South Entrance		
	Differential	N1 Depth	Differential	E1 Depth	E2 Depth	E3 Depth	JP 6	Differential	W1 Depth	W2 Depth	W3 Depth	Differential	S1 Depth
2/25	1.5	9.4	<i>East Ladder dewatered for winter</i>										
2/26	1.3	10.8											
2/27	1.3	9.5											
2/28	1.3	10.8											
3/1	1.3	10.9											
	1.4	10.8											
3/2	1.3	10.8											
	1.3	10.7											
3/3	1.3	10.8											
	1.3	10.6											
AVG:	1.3	10.5											

Fishways are inspected twice daily plus one SCADA inspection.



Finishing touches to AWS intake



Forming room around 10' valve