

The Dalles Dam Fishway Status Report

12/31/2017

Inspection Period: 12/24/2017-12/30/2017

THE DALLES DAM



The Dalles Project-Fisheries
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Fishways are inspected twice daily plus one SCADA inspection

The Dalles Dam	Inspections Out of Criteria	Criteria Limit	Total Number of Inspections: Comments	6	Temperature: Secchi:	42.2 °F 5.0 feet
NORTH FISHWAY						
Exit differential	0	≤ 0.5'				
Count station differential	0	≤ 0.3'				
Weir crest depth	0	1.0' ± 0.1'				
Entrance differential	1	1.0' - 2.0'	1.1			Tailwater sensor failure repaired within on day. Entrance flow uncompromised.
Entrance weir N1	1	depth (≥ 8')	8.4			Tailwater sensor failure repaired within on day. Entrance flow uncompromised.
Entrance weir N2	0	Closed				
PUD Intake differential	0	≤ 0.5'				
EAST FISHWAY Out of service Dec1						
Exit differential	0	≤ 0.5'				
Removable weirs 154-157	0	Per forebay	Gearbox rehab start on 155 and 156			
Weir 158-159 differential	0	1.0' ± 0.1'	Gearbox rehab start on 158			
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')				Weir removed for caps and rehab
Entrance weir W2	0	depth (≥ 8')				Weir removed for caps and rehab
Entrance weir W3	0	No criteria				Weir removed for caps and rehab
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					Spillway closed midnight Aug31
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:

No sea lion sightings this week. Numerous eagles using westrick park

Operations

North fishway in full operation. Tailwater sensor failed, but PUD repaired within 1 day. Entrance flow appeared to remain in criteria. Sluiceway endgate closed Dec18. Sluiceways open at unit 1 and 18 to equalize with forebay.

Current Outages;

T8 (MU15 & MU16) out for transformer failure. Transformer replacement 7/5/18.

MU17 out for overhaul. Returned 3/8/18.

Fish unit 1 and 2 off 0001 Dec 1 for annual fishway outage. East fishladder dewatered Dec 1.

Maintenance;

East exit weir electrical panel FCQ7 partially installed. Further install awaiting final design.

West entrance weirs removed. Entrance weir cap install underway.

East exit oil boom installation by AWS contract this winter. Scope reviewed.

Fish lock upper and lower bulkhead replacement with concrete for improved isolation and fishladder protection. Scope in review.

East exit 155, 156, 158 weir gearboxes disconnected. To be removed for rehab next week.

Fishlock diffuser valve rehab completed for improved isolation from east fishway.

Work starting on a collection diffuser valve rehab for scoping purposes on remaining valves

Collection channel removal of stuck dewater pump starting.

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 - Normandau 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 being released. Concern brought to FPOM.

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.

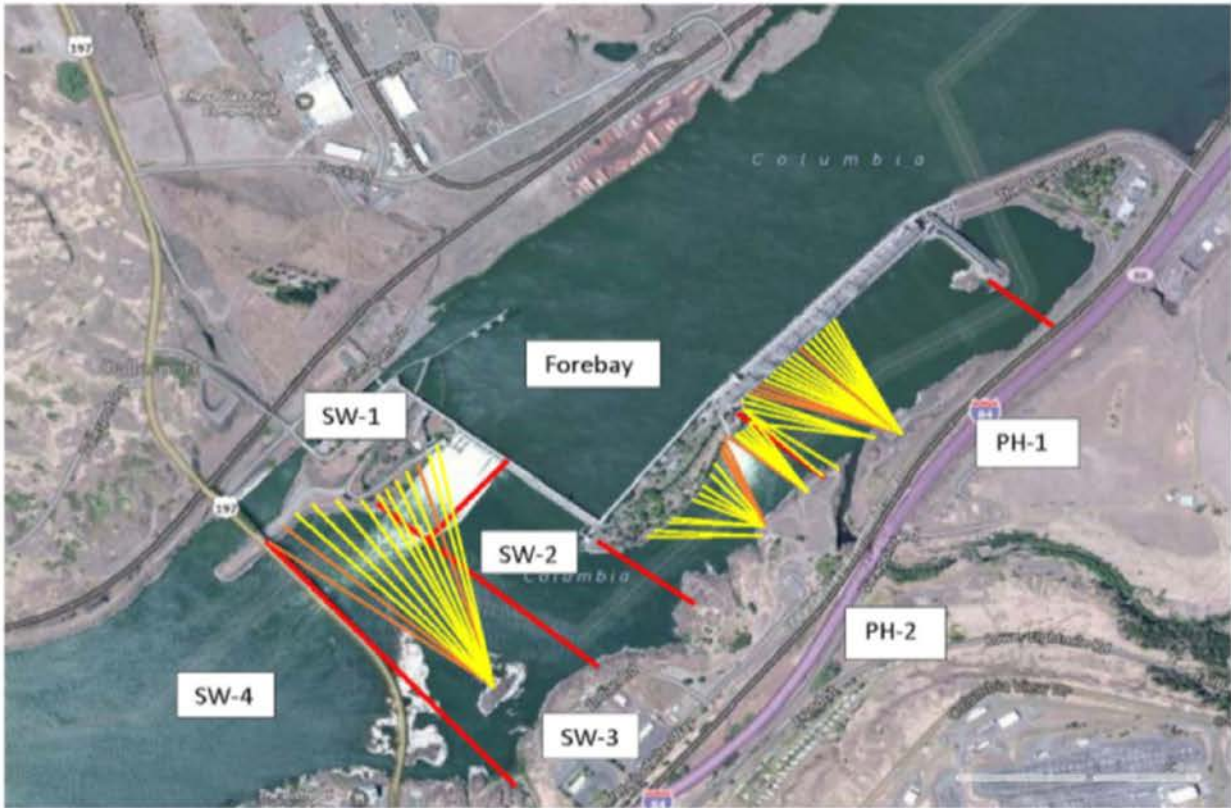
Fish unit breaker replace - Work in progress. Completion Feb18, 2018. Two weeks commission testing required.

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

2017 Piscivorous Bird Counts

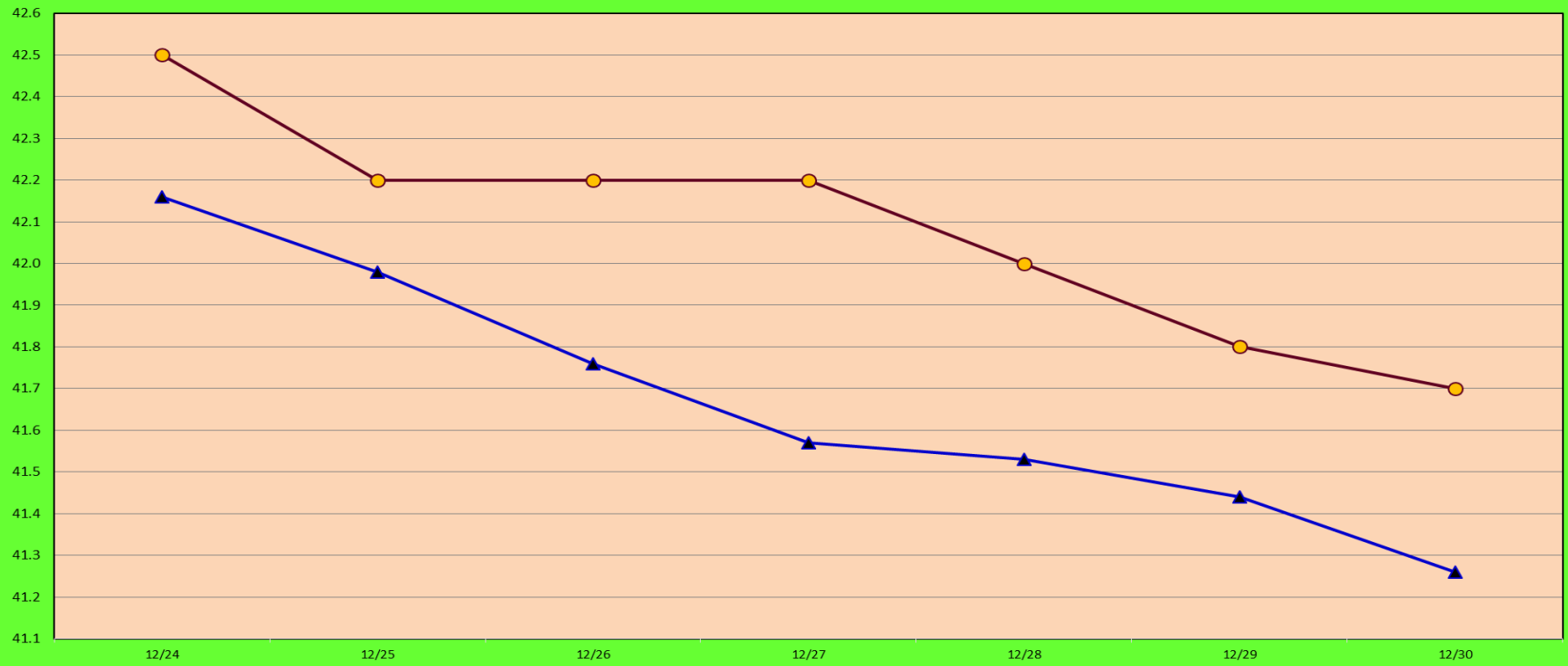
F=foraging, NF=non-foraging

Date	observer	time	Zone	Gull		Cormorant		Caspian tern		Grebe		Pelican		Other		Total birds in zone	Notes
				F	NF	F	NF	F	NF	F	NF	F	NF	F	NF		
12/24	JWR	AM	FB	0	0	15	0	0	0	0	6	0	0	1	0	22	BAEA BAEA BAEA
			PH1	3	0	0	7	0	0	0	0	0	0	0	0	10	
			PH2	0	0	0	0	0	0	0	0	0	0	0	13	13	
			SW1	0	0	0	0	0	0	0	0	0	0	0	1	1	
			SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	
			SW3	0	18	0	60	0	0	0	0	0	0	0	0	78	
12/25		PM	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	0	0	0	0	0	0	0	0	0	0	0	0	
12/26	JWR	AM	FB	0	0	2	0	0	0	8	0	0	0	3	13	BAEA BAEA BAEA	
			PH1	0	0	0	0	0	0	0	0	0	0	1	1		
			PH2	3	0	0	0	0	0	0	0	0	0	11	14		
			SW1	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		
			SW3	0	0	0	77	0	0	0	0	0	0	0	0		77
12/27	bc	PM	FB	0	0	6	0	0	0	4	0	0	0	19	29	BAEA	
			PH1	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		
			SW1	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		
			SW3	0	0	0	0	0	0	0	0	0	0	0	0		
12/28	bc	AM	FB	0	0	7	0	0	0	8	0	0	0	0	15	BAEA BAEA	
			PH1	0	0	0	0	0	0	0	0	0	0	0	0		
			PH2	0	0	0	0	0	0	0	0	0	0	14	14		
			SW1	0	0	0	0	0	0	0	0	0	0	2	2		
			SW2	0	0	0	36	0	0	0	0	0	0	0	36		
			SW3	0	0	0	0	0	0	0	0	0	0	0	0		
12/29	JWR	PM	FB	0	0	0	0	0	0	7	0	0	0	1	8	BAEA BAEA BAEA	
			PH1	0	0	0	0	0	0	0	0	0	0	0	0		
			PH2	0	0	0	0	0	0	0	0	0	0	9	9		
			SW1	0	0	0	0	0	0	0	0	0	0	2	2		
			SW2	0	0	0	0	0	0	0	0	0	0	0	0		
			SW3	0	0	0	74	0	0	0	0	0	0	0	74		
12/30		AM	FB	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		
			PH2	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		
			SW2	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		

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

● Current USGS daily tailwater average

▲ USGS daily tailwater average (2007-2016)



USGS: http://pweb.crohms.org/tmt/documents/ops/temp/201712_lcol.html

	Secchi:		Temperatures
12/24	5.0	Sun	42.5
12/25		Mon	42.2
12/26	5.0	Tue	42.2
12/27	5.0	Wed	42.2
12/28	5.0	Thurs	42.0
12/29	5.0	Fri	41.8
12/30		Sat	41.7
	5.0	AVG	42.2

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	S2 Depth
12/24	1.3	8.6												
12/25														
12/26	1.4	9.0												
12/27	0.3	7.1												
12/28	1.3	8.8												
12/29	1.4	8.7												
12/30														
AVG:	1.1	8.4												

Sensor repaired

East Ladder dewatered for winter

Fishways are inspected twice daily plus one SCADA inspection.



Weir caps assembled, painted and ready to install



Preparing foundation for 10'valve room