# The Dalles Dam Fishway Status Report

1/28/2017

Inspection Period: 01/22/2017 - 01/28/2017

# THE DALLES DAM



		Fishwa	ys are inspect	ed once daily during v	winter			
The Dalles Dam	Inspections	Criteria	Total Num	per of Inspections:	7	Temperature:	35.4	°F
The Dailes Daili	Out of Criteria	Limit	Comments:			Secchi: 5.0	) feet	
				H FISHWAY				
Exit differential	0	≤ 0.5'	1.3					
Count station differential	0	≤ 0.3'						
Weir crest depth	0	1.0' ± 0.1'						
Entrance differential	0	1.0' - 2.0'						
Entrance weir N1	0	depth (≥ 8')	9.1					
Entrance weir N2	0	Closed						
PUD Intake differential	0	≤ 0.5'						
			EAST	FISHWAY				
Exit differential		≤ 0.5'	_					
Removable weirs 154-157		Per forebay	]					
Weir 158-159 differential		1.0' ± 0.1'	]					
Count station differential		≤ 0.3'						
Weir crest depth		1.0' ± 0.1'						
Junction pool weir JP6		depth (≥ 7')						
East entrance differential		1.0' - 2.0'						
Entrance weir E1		No criteria						
Entrance weir E2		depth (≥ 8')				• 4		
Entrance weir E3		depth (≥ 8')	I Ou	t for wint	er m	naintena	ance a	and
Collection channel velocity		1.5 - 4 fps	]		_		_	
Transportation channel velocity		1.5 - 4 fps	]	AWS bac	kun	constri	uction	7
North channel velocity		1.5 - 4 fps	<b>_</b>	TITO DUO	Nup		400.01	
South channel velocity		1.5 - 4 fps	]					
West entrance differential		1.0' - 2.0'	]					
Entrance weir W1		depth (≥ 8')	]					
Entrance weir W2		depth (≥ 8')	]					
Entrance weir W3		No criteria	]					
South entrance differential		1.0' - 2.0'	]					
Entrance weir S1		depth (≥ 8')						
Entrance weir S2		depth (≥ 8')						
				LE PASSAGE				
Sluicegate operation	NA	Units 1, 18	Closed. Reope	ns Mar1 for fish passag	ge			
Turbine trashrack drawdown	NA							
spill	NA							
Turbine 1% Efficiency	NA	per FPP	Out of fish pas					
Turbine Unit Priority	NA	per FPP	Out of fish pas	sage season				

#### Birds/Sea lions:

No sea lions observed. All bird numbers low as shown in bird counts

Bird observation data collected once daily. Refer to Avian Zone map and bird count.

Two of 13 spillway avian lines broke closest to bridge. Work plan and hazing plan routed for approvals.

#### **Operations:**

North Fishway watered up 01-24. Additional temperature monitoring probe deployed at north entrance, data shown in temperature graph

#### **Current Outages:**

T8 (MU15 & MU16) forced out due to transformer failure. Transformer replacement scheduled for spring 2018.

MU21 out for exciter failure, return Feb23

MU3 out for governor oil level failure, return Feb24

#### Maintenance:

North fishway entrance diffuser grating will be inspected by ROV 2/15.

Navlock intake trashrack, PUD intake trashrack and North entrance exit will be inspected via ROV on 2/15

Plans underway to intall material to east count station crowder to keep lamprey out from behind crowder

New east exit weir electrical panel FCQ7 installation on hold awaiting funding.

East ladder dewatered Dec 1 through end Feb for AWS backup construction. North ladder returned to service.

Winter work in progress; East exit weirs 154 and 159 coupler/seal replacement, ladder expansion joint repair, N1 weir rehab, W1 weir repair/wheel replace.

Brush strip to be install bottom of east count station crowder to prevent lamprey entering behind crowder. FPOM approved.

Long Term repair maintenance plans; 154 -157 rehab/weir wheel replace, collection channel diffusers decommission, repair failed diffusers.

Fish related /non-fish funded items; Spillway crane and spillgate 9, both awaiting funding.

All spillway items on Critical Infrastructure list and Unfunded Requirement list.

#### Research/Construction:

Unit 1 EAL environmental acceptable grease - Coordinated and approved through FPOM.

North fishladder rehab/rock wall stabilizing - Awaiting funding. Possible 2018/19.

East fishladder AWS emergency backup - Forebay diving sawcutting continues. Junction pool concrete removal continues. Excavation 7' valve room.

Jackhammering of hole approximately 30'. Forebay slot cutting via dive for peirs continues.

Railroad track removal - Mobilizing for work start this winter. Work over sluiceway next spring FPOM approved. Crane rail replacement 2021.

Tailrace crane rehab - Work resumed. Completion Feb.

Fish unit breaker replace.- Work start fall 2017. Switch over Jan 2018.

Fish unit rehab - Kickoff meeting Jan 19, 2017. Phase 1A report Jan 2018. Award 2020. Completion 2022. Investigating possible more flow for redundancy.

Transformer replacement - Developing sequence. Install start May 2018. MOC to be provided to FPOM.

N Wasco Co PUD Memo of Agreement - Reviewing final comments.

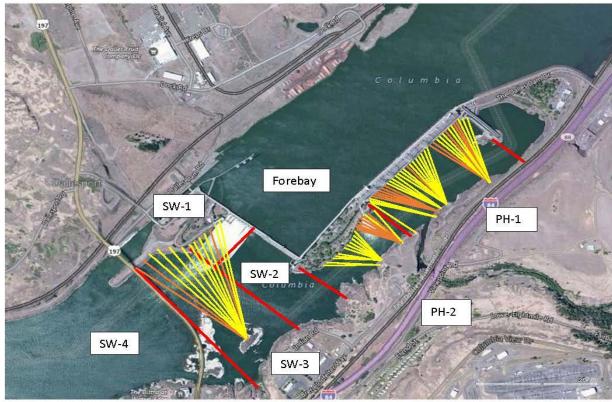
Lamprey minor mods - Tribal trap hoist improvements and rounded entrance weir caps designs underway, fab '17, install '17/'18.

#### Research/Contractors:

Kiewit on site for east fishladder AWS backup. Monitoring work progress. Refer to Pic tabs.

Approved by: Ron Twiner

Operation Project Manager The Dalles Dam



Red lines = avian zones

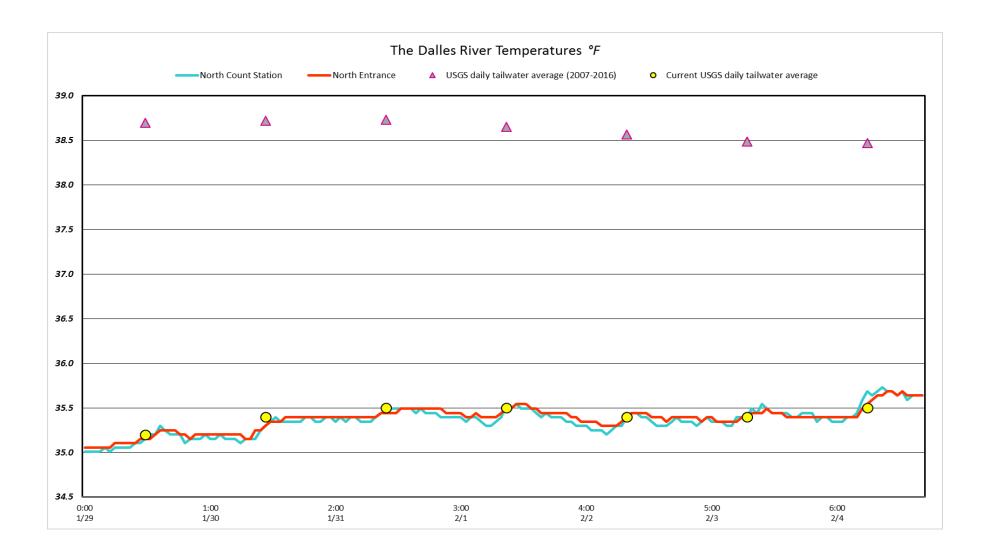
Yellow lines = current wires

Orange lines = down or missing wires

## 2017 Piscivorous Bird Counts

### F=foraging, NF=non-foraging

1/28 C	GJF GJF	AM/PM  AM  PM	FB PH1 SW2 SW4 FB PH1 SW2 SW1 SW4 FB PH1 SW2 SW3 SW4 FB PH1 FB FB PH1 FB PH1 SW2 SW3 SW4 FFB PH1	F 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	NF 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	F 7 0 0 0 0 0 1 0 0 1 0 0 0 0 0 0 0 0 0 0	NF 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	F 0 0 0 0 0 0 0 0 0 0	NF 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	F 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	NF 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	F 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	NF 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	F 0 0 0 0 0 0	NF 0 0 49 0 11 0 0	7 0 49 0 111 0 0 0	2 GBHE, 47 BAEA COME	
1/29 (	GJF	PM	PH1 PH2 SW1 SW2 SW3 SW4 FB PH1 PH2 SW1 SW2 SW3 SW4 FB FB FF FF FF FF FF FF FF FF	0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 19 0 0 0	0 0 0 0 0 0 1 0 0	0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0	0 0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 49 0 11 0	0 49 0 11 0	·	
1/29 (	GJF	PM	PH2 SW1 SW2 SW3 SW4 FB PH1 PH2 SW1 SW2 SW3 SW4 FB FB	0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 19 0 0 0	0 0 0 0 0 1 0 0	0 0 0 0 0 0 0	0 0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0	49 0 11 0	49 0 11 0	·	
1/29 (	GJF	PM	SW1 SW2 SW3 SW4 FB PH1 PH2 SW1 SW2 SW3 SW4 FB	0 0 0 0 0 0 0 0 0 0	0 0 0 0 19 0 0 0	0 0 0 0 1 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0	0 0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 11 0	0 11 0	·	
1/29 (	GJF	PM	SW2 SW3 SW4 FB PH1 PH2 SW1 SW2 SW3 SW4 FB	0 0 0 0 0 0 0 0 0 0	0 0 0 19 0 0 0	0 0 0 1 0 0 1 0	0 0 0 0 0 0	0 0 0 0 0	0 0 0 0	0 0 0	0 0 0	0	0	0	11 0	11 0	COME	
1/30			SW3 SW4 FB PH1 PH2 SW1 SW2 SW3 SW4 FB	0 0 0 0 0 0 0 0 0	0 0 19 0 0 0	0 0 1 0 0 1	0 0 0 0 0	0 0 0 0	0 0 0 0	0 0 0	0	0	0	0	0	0	COME	
1/30			SW4 FB PH1 PH2 SW1 SW2 SW3 SW4 FB	0 0 0 0 0 0 0	0 19 0 0 0 0	0 1 0 0 1	0 0 0 0	0 0 0 0	0 0 0	0	0							
1/30			FB PH1 PH2 SW1 SW2 SW3 SW4 FB	0 0 0 0 0 0 0	19 0 0 0 0	1 0 0 1	0 0 0	0 0 0	0	0		0	1 0 1	0	1 0	1 0 1		
1/30			PH1 PH2 SW1 SW2 SW3 SW4 FB	0 0 0 0 0 0	0 0 0 0	0 0 1 0	0 0 0	0	0			_					DALA	
1/30			PH2 SW1 SW2 SW3 SW4 FB	0 0 0 0 0	0 0 0 0	0 1 0	0	0			0	0	0	0	0	24 0	BAEA	
1/30			SW1 SW2 SW3 SW4 FB	0 0 0 0	0 0 0	1 0	0			0	0	0	0	0	33	33	BAEA	
1/30			SW2 SW3 SW4 FB	0 0 0	0	0			0	0	0	0	0	0	0	1	Brieri	
	GJF	AM	SW3 SW4 FB	0 0 0	0			0	0	0	0	0	0	0	14	14	COME	
	GJF	AM	FB	0	0		0	0	0	0	0	0	0	0	0	0		
	GJF	AM				0	0	0	0	0	0	0	0	0	0	0		
	GJF	AM	PH1		0	2	0	0	0	4	0	0	0	0	0	6		
	GJF	AM		0	0	0	3	0	0	0	0	0	0	0	0	3		
	GJF	AM	PH2	0	1	0	0	0	0	0	0	0	0	0	34	35	2 GBHE, 32 BAEA	
. (0.1		r	SW1	0	0	0		0 0	0	0	0	0	0	1	0	1	COME	
1 (0.1			SW2	0	0	0	0	0	0	0	0	0	0	0	0	0		
1/01		-	SW3	0	1	0	3	0	0	0	0	0	0	0	0	4		
. (0.1			SW4	0	0	0	1	0	0	0	0	0	0	0	0	0		
		-	FB 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		
1/31		РМ	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		
			SW4	0	0	0	0	0	0	0	0	0	0	0	0	0		
			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		
- 11			PH2	0	0	0	0	0	0	0	0	0	0	0	14	14	BAEA	
2/1 J	JWR	AM	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	DATA	
			SW3 SW4	0	0	0	8	0	0	0	0	0	0	0	<u>3</u>	0	BAEA	
			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	7	7	5 BAEA, 2 GBHE	
2/2 J	JWR	JWR I	JWR PM	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	7	0	0	0	0	0	0	0	1	8	GBHE	
			SW4	0	0	0	0	0	0	0	0	0	0	0	0	0		
		ļ	FB	0	1	0	0	0	0	0	0	0	0	0	0	1		
		-	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	DATA	
2/3 J	JWR	AM	PH2 SW1	0	0	0	0	0	0	0	0	0	0	0	7 0	7	BAEA	
2/3   3	3441	Aivi	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0		
1		ŀ	SW3	0	0	0	3	0	0	0	0	0	0	0	1	4	BAEA	
1			SW4	0	0	0	0	0	0	0	0	0	0	0	1	1	BAEA	
			FB	0	0	0	0	0	0	0	0	0	0	0	1	1	BAEA	
1		[	PH1	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	5	5	BAEA	
2/4 J	JWR	PM	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0		
1			SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	00:	
1			SW3 SW4	0	0	0	5 0	0	0	0	0	0	0	0	6	11	GBHE	



			USGS:
	Secchi:		Temperatures
1/29	5.0	Sun	35.2
1/30	5.0	Mon	35.4
1/31	5.0	Tue	35.5
2/1	5.0	Wed	35.5
2/2	5.0	Thurs	35.4
2/3	5.0	Fri	35.4
2/4	5.0	Sat	35.5
	5.0	AVG	35.4

The Dalles Dam Daily Readings and Averages for

Temperatures, Secchi, Entrances, and Spill

= Out of criteria

/www.nwd-wc.usace.army.mil/tmt/documents/ops/temp/201701.lcol.h

	North I	Ladder	East Ladder												
	North E	North Entrance East Entrance				West E	ntrance	South Entrance			1				
Date:	Differential	N1 Depth	Differential	E1 Depth	E2 Depth	E3 Depth	JP 6	Differential	W1 Depth	W2 Depth	W3 Depth	Differential	S1 Depth	S2 Depth	
1/29	1.4	9.1													
1/30	1.4	9.1													
1/31	1.5	9.2													
2/1	1.4	9.2				East	Ladd	er OOS	for Ma	aintena	ance				
2/2	1.4	9.1													
2/3	1.5	9.2													
2/4	1.4	9.3													
	1.4	9.2													



Installation of 7' pipe over junction pool. Could use more people pushing on it.