

The Dalles Dam Fishway Status Report

1/28/2017

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

THE DALLES DAM



US Army Corps
of Engineers
Portland District

Fishways are inspected once daily during winter

The Dalles Dam	Inspections Out of Criteria	Criteria Limit	Total Number of Inspections:	7	Temperature:	34.6 °F
			Comments:	Snow	Secchi:	4.8 feet

NORTH 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')
Entrance weir E3		depth (≥ 8')
Collection channel velocity		1.5 - 4 fps
Transportation channel velocity		1.5 - 4 fps
North channel velocity		1.5 - 4 fps
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')

***Out for winter maintenance and
AWS backup construction***

JUVENILE PASSAGE

Sluiceway operation	NA	Units 1, 18	Closed. Reopens Mar1 for fish passage
Turbine trashrack drawdown	NA		
spill	NA		
Turbine 1% Efficiency	NA	per FPP	Out of fish passage season
Turbine Unit Priority	NA	per FPP	Out of fish passage season

Birds/Sea lions:

No sea lions observed. High numbers of non foraging Cormorants. High Bald Eagle numbers in westrick park.

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 entrance not dewatered below tailwater due to ice. Fishway watered up Jan24. Diffuser grating to be inspected via ROV.

Oil sheen observed with unit 9 startup. 10'x10' sheen reported. Troubleshooting source.

Current Outages;

T8 (MU15 & MU16) forced out due to transformer failure. Return unknown.

MU21 out for exciter failure, return Feb23

MU3 out for governor oil level failure, return Feb24

Maintenance:

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.

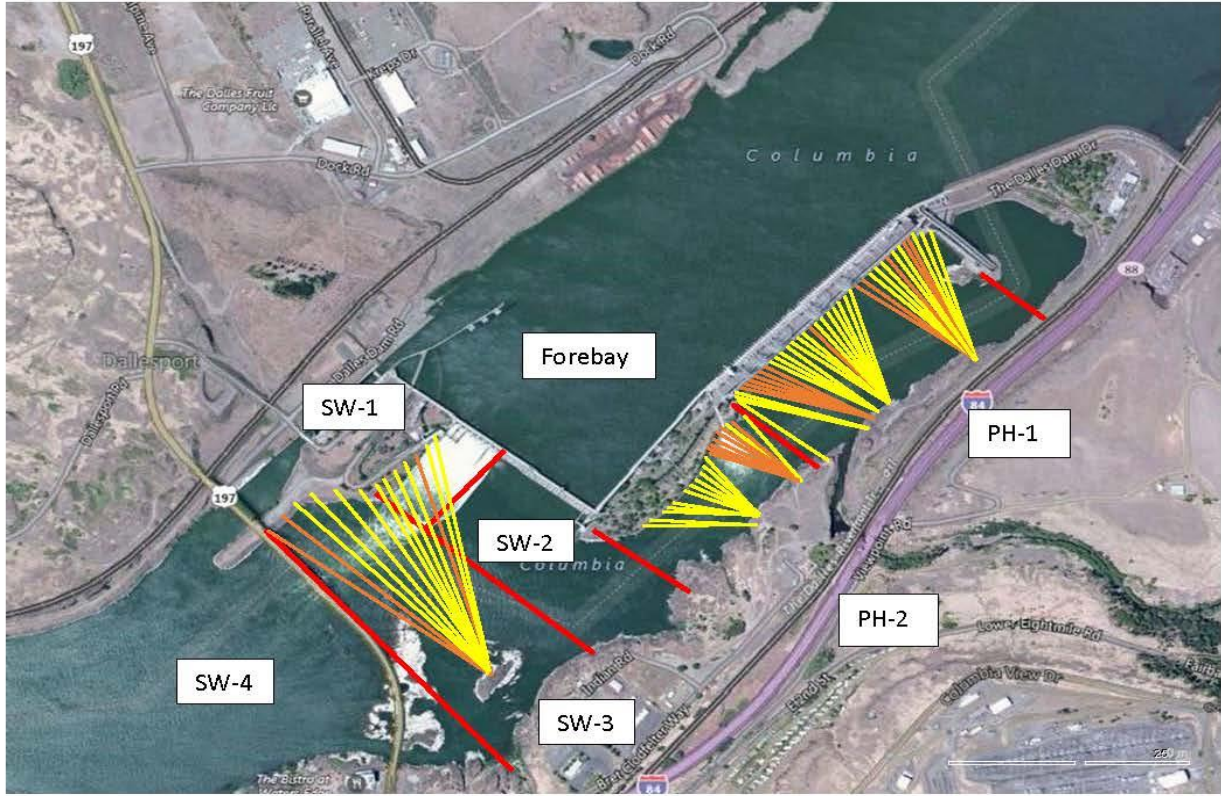
Lamprey minor mods - Tribal trap hoist improvements and rounded entrance weir caps designs underway, fab '17, install '17/'18.

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

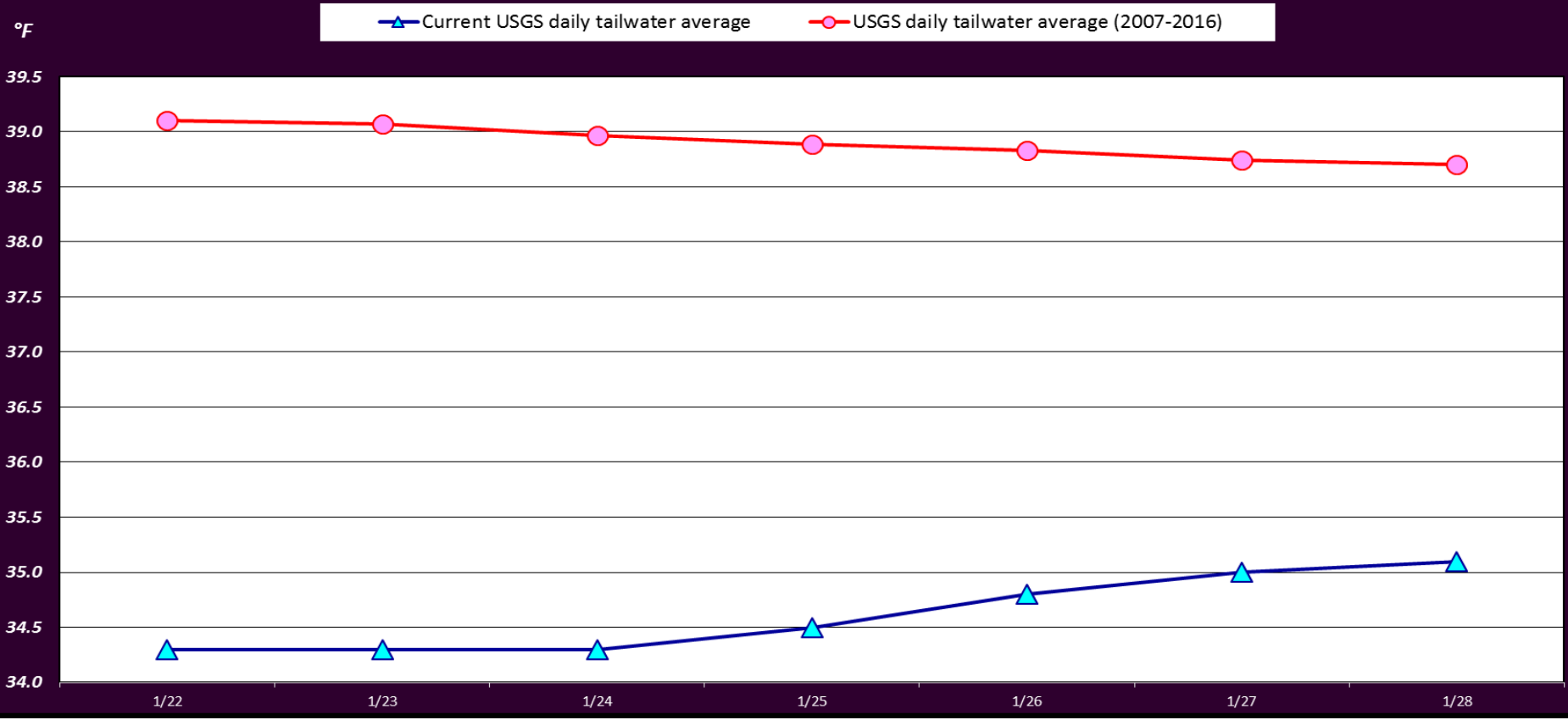
Orange lines = down or missing wires

2016 Piscivorous Bird Counts

F=foraging, NF=non-foraging

Date	Observer	AM/PM	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			
1/22/17		AM	FB	0	0	0	0	0	0	0	0	0	0	0	0	0	No observations	
			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		
1/23/17		PM	FB	0	0	0	0	0	0	0	0	0	0	0	0	0	No observations	
			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		
1/24/17		AM	FB	0	0	0	0	0	0	0	0	0	0	0	0	0	No Observations	
			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		
1/25/17	GJF	PM	FB	0	45	11	0	0	0	2	0	0	0	2	0	60	BAEA COME 7 GBHE, 41 BAEA	
			PH1	2	2	7	0	0	0	0	0	0	0	13	0	24		
			PH2	4	0	0	0	0	0	0	0	0	0	0	48	52		
			SW1	0	7	1	0	0	0	0	0	0	0	0	0	8		
			SW2	0	0	2	0	0	0	0	0	0	0	0	0	2		
			SW3	0	0	0	58	0	0	0	0	0	0	0	0	58		
1/26/17	GJF	AM	FB	0	0	2	0	0	0	0	0	0	0	0	1	3	BAEA 3 GBHE, 38 BAEA COME	
			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	41		41
			SW1	0	0	1	0	0	0	0	0	0	0	0	0	1		
			SW2	0	0	0	0	0	0	0	0	0	0	0	0	21		21
			SW3	0	0	0	0	0	0	0	0	0	0	0	0	0		0
1/27/17	GJF	PM	FB	0	0	5	0	0	0	0	0	0	0	0	2	7	BAEA 1 GBHE, 38 BAEA COME COME	
			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	39		39
			SW1	0	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	34		34
			SW3	0	0	0	0	0	0	0	0	0	0	0	0	0		0
1/28/17	GJF	AM	FB	0	0	7	0	0	0	0	0	0	0	0	0	7	2 GBHE, 47 BAEA COME	
			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	49		49
			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	11		11
			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					
<i>daily averages</i>				0.1	1.1	0.7	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.3	5.0	8.8		

The Dalles Dam USGS River Temperatures



USGS: <http://www.nwd-wc.usace.army.mil/tm/documents/ops/temo/201701.tcof.html>

Secchi:		Temperatures
1/22	Sun	34.3
1/23	Mon	34.3
1/24	Tue	34.3
1/25	Wed	34.5
1/26	Thurs	34.8
1/27	Fri	35.0
1/28	Sat	35.1
	AVG	34.6

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
1/22/17														
1/23/17														
1/24/17														
1/25/17	1.3	9.1												
1/26/17	1.3	9.1												
1/27/17	1.3	9.2												
1/28/17	1.3	9.1												
	1.3	9.1												

East Ladder OOS for Maintenance

Fishways are inspected twice daily plus one SCADA inspection.



View from east face of junction pool. Opening for AWS pipe crossover.



View looking into junction pool. Two levels of work platforms.



Hole excavation near complete for this year. Potential ampitheater for project plays and karaoke.