

# The Dalles Dam Fishway Status Report

1/18/2017

Inspection Period: 01/08/2017 - 01/14/2017

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: 35.7 °F
			Comments: Fall like conditions on project	Secchi: 5.0 feet
<b>NORTH FISHWAY</b>				
Exit differential		≤ 0.5'	<b><i>Out for winter maintenance</i></b>	
Count station differential		≤ 0.3'		
Weir crest depth		1.0' ± 0.1'		
Entrance differential		1.0' - 2.0'		
Entrance weir N1		depth (≥ 8')		
Entrance weir N2		Closed		
PUD Intake differential		≤ 0.5'		
<b>EAST FISHWAY</b>				
Exit differential		≤ 0.5'	<b><i>Out for winter maintenance and AWS backup construction</i></b>	
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')		
<b>JUVENILE PASSAGE</b>				
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 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 being routed for approvals.

**Operations:**

Continued efforts to dewater north entrance below tailwater postponed due to ice. Outage extension into end of next week per FPOM approval.

**Current Outages;**

T8 (MU15 & MU16) forced out due to transformer failure. Return unknown.  
MU21 out for exciter failure, return unknown

**Maintenance:**

New east exit weir electrical panel FCQ7 installation to continue as funding allows.  
East ladder dewatered Dec 1 through end Feb for AWS backup construction. North ladder dewatering Jan 4 - 19.  
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 installed at 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.

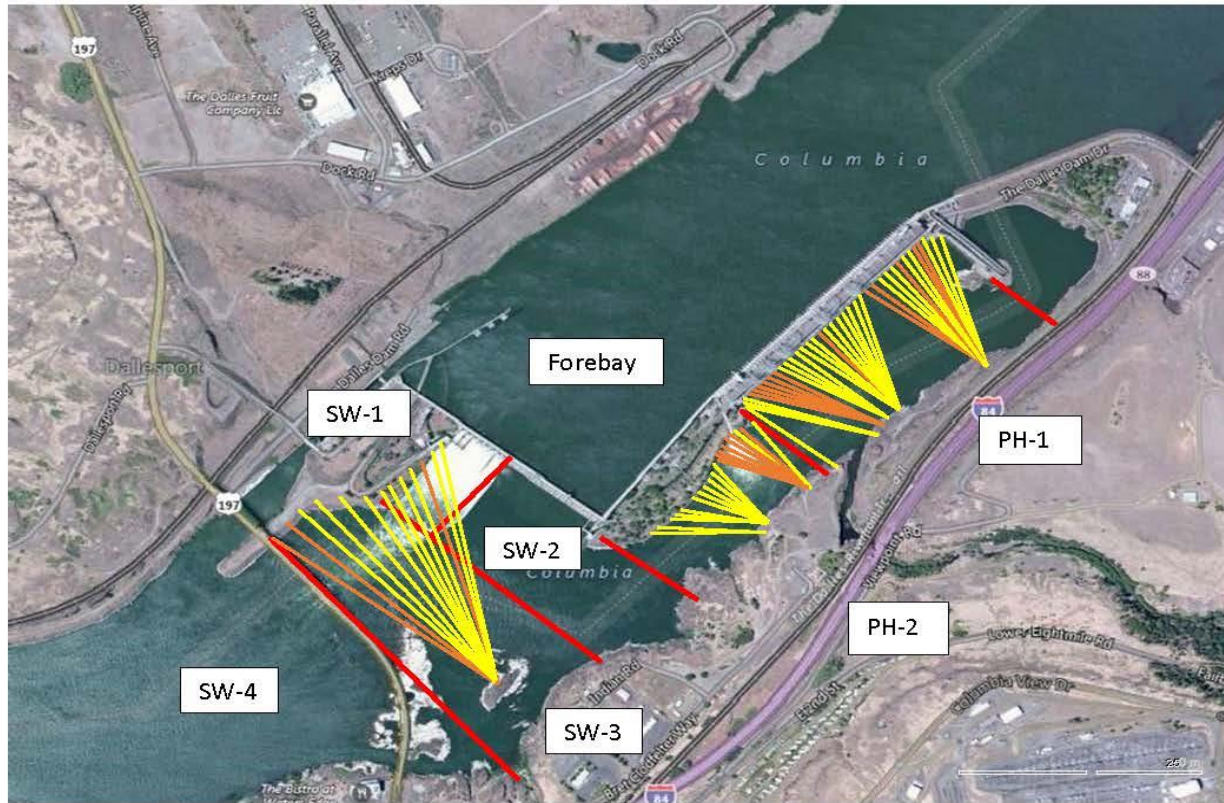
**Research/Construction:**

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 underway. Scaffold and work platform in junction pool. Junction pool concrete east side removed.  
Jackhammering of hole approximately 20'. 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 - Install start May 2018. Sequence being reviewed for least fish passage risk. MOC to be provided to FPOM.  
N Wasco Co PUD Memo of Agreement - Reviewing final comments.  
Lamprey minor mods - East tribal trap hoist improvements design underway. Rounded entrance weir caps design underway, planned 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

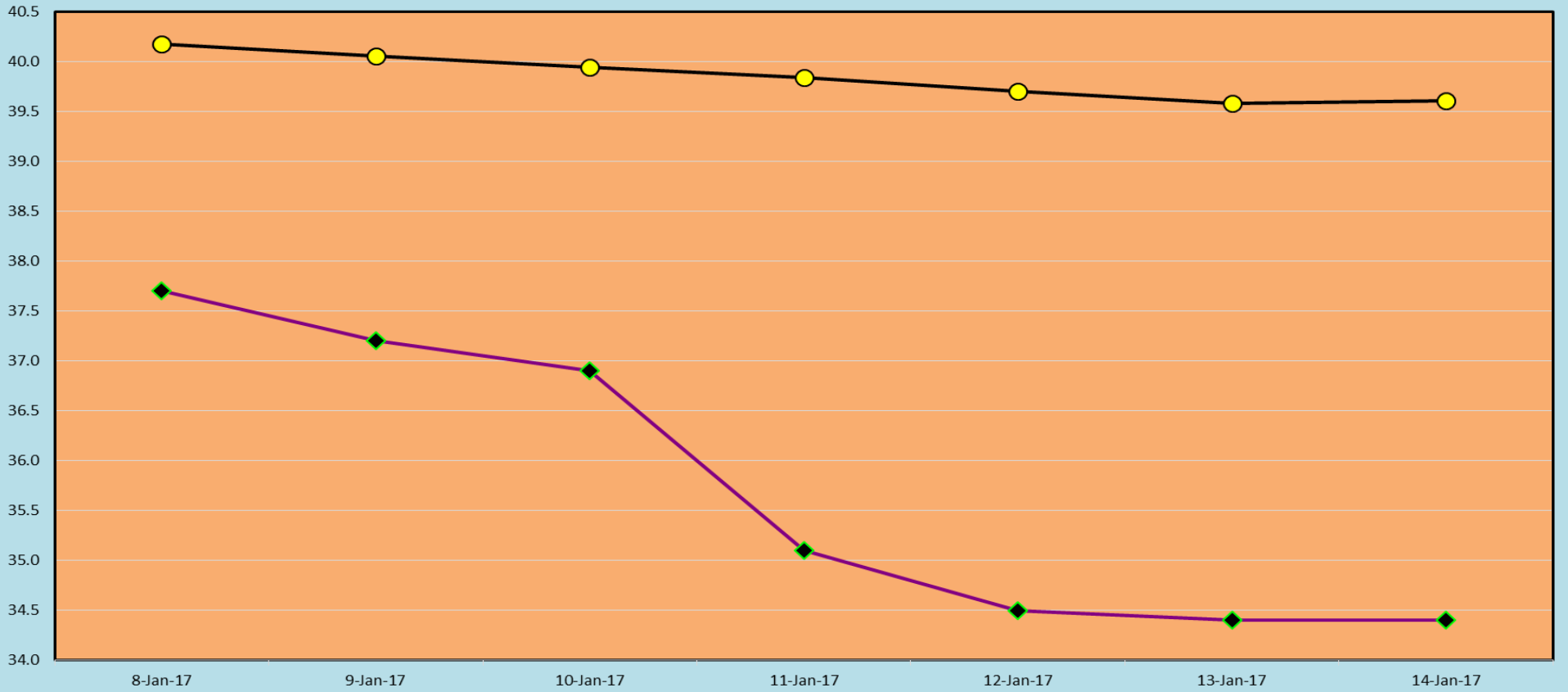
## 2016 Piscivorous Bird Counts

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				
1/8/17	JWR	AM	FB	0	0	0	3	0	0	0	0	0	0	0	0	0	3	BAEA	
			PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0		GBHE
			PH2	0	0	0	0	0	0	0	0	0	0	0	0	58	58		
			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	0	
			SW3	0	0	0	71	0	0	0	0	0	0	0	0	0	2	73	
SW4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
1/9/17	JWR	PM	FB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	BAEA	
			PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0		GBHE
			PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	29		
			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	0	
			SW3	0	0	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	0	0				
1/10/17	GJF	AM	FB	0	3	6	0	0	0	5	0	0	0	0	0	2	16	BAEA COME BAEA	
			PH1	3	0	0	0	0	0	0	0	0	0	4	0	7	BAEA		
			PH2	0	0	0	0	0	0	0	0	0	0	0	31	31			
			SW1	0	11	0	0	0	0	0	0	0	0	0	0	0		11	
			SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
			SW3	0	15	0	87	0	0	0	0	0	0	0	0	0	102		
SW4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
1/11/17	GJF	PM	FB	0	75	11	0	0	0	2	0	0	0	0	7	95	BAEA		
			PH1	4	0	0	0	0	0	0	0	0	0	0	0	4		BAEA	
			PH2	0	0	0	0	0	0	0	0	0	0	0	0	45			45
			SW1	0	4	0	0	0	0	0	0	0	0	0	0	0	4		
			SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
			SW3	0	0	0	45	0	0	0	0	0	0	0	0	0	0	45	
SW4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
1/12/17	GJF	AM	FB	0	11	5	0	0	0	1	0	0	0	0	2	19	BAEA		
			PH1	0	0	0	0	0	0	0	0	0	0	0	0	0		0	BAEA
			PH2	0	0	0	0	0	0	0	0	0	0	0	0	55		55	
			SW1	0	15	0	0	0	0	0	0	0	0	0	0	0	15		
			SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
			SW3	0	0	0	79	0	0	0	0	0	0	0	0	0	0	79	
SW4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
1/13/17	GJF	PM	FB	0	44	7	0	0	0	6	0	0	0	0	2	59	BAEA		
			PH1	0	0	0	0	0	0	0	0	0	0	0	0	0		0	BAEA
			PH2	0	0	0	0	0	0	0	0	0	0	0	0	33		33	
			SW1	0	2	0	0	0	0	0	0	0	0	0	0	0	2		
			SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
			SW3	0	0	0	56	0	0	0	0	0	0	0	0	0	0	56	
SW4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
1/14/17	GJF	AM	FB	0	12	15	0	0	0	2	0	0	0	0	5	34	BAEA		
			PH1	0	0	0	0	0	0	0	0	0	0	0	0	0		0	BAEA
			PH2	0	0	0	0	0	0	0	0	0	0	0	0	46		46	
			SW1	0	1	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	0	0	
			SW3	0	0	0	69	0	0	0	0	0	0	0	0	0	0	69	
SW4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
<i>daily averages</i>				0.1	3.9	0.9	8.4	0.0	0.0	0.3	0.0	0.0	0.0	0.1	5.9	20.2			

# USGS River Temperatures

◆ Current USGS daily averages    ● USGS daily tailwater average (2007-2015)







Work area in junction pool. Prep for aux water pipe crossing.



Dive operations in forebay. Slot cutting for piernose anchors.