

# The Dalles Dam Fishway Status Report

1/30/2016

Inspection Period: 01/24/2016-01/30/2016

## THE DALLES DAM



US Army Corps  
of Engineers  
Portland District

The Dalles Project-Fisheries  
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*Fishways are inspected once daily plus one SCADA inspection starting December 1*

The Dalles Dam	Inspections Out of Criteria	Criteria Limit	Total Number of Inspections: 7		Temperature: 41.0 °F	
			Comments		Secchi: 5.0 feet	
<b>NORTH FISHWAY</b>						
Exit differential	0	≤ 0.5'				
Count station differential	0	≤ 0.3'				
Weir crest depth	4	1.0' ± 0.1'	0.8	Upper diffuser valve inop and closed, fixed as of 1/28		
Entrance differential	0	1.0' - 2.0'	1.4			
Entrance weir N1	0	depth (≥ 8')	9.0			
Entrance weir N2	0	Closed				
PUD Intake differential	0	≤ 0.5'				
<b>EAST FISHWAY</b>						
<p>East Ladder down for winter maintenance RTS 2/28/16</p>						
<b>JUVENILE PASSAGE</b>						
Sluiceway operation	0	Units 1, 8, 18				
Turbine trashrack drawdown		<1.5', wkly				
Spill volume	Spill RTS ~April 2016					
Spill Pattern						
Turbine Unit Priority	NA	per FPP	Out of fish passage season			
Turbine 1% Efficiency	NA	per FPP	Out of fish passage season			

**OTHER ISSUES:****Birds/Sea lions:**

Bird observation data collected once daily. Refer to Avian Zone map. 80-100 Bald eagles on project.

**Operations:**

East fish ladder dewatered through Feb 28 for annual maintenance.

North fishway in service.

Turbine trashrack drawdown and velocities to resume Mar 1.

**Current Outages:**

T8 (MU15 & MU16) de-rated to 85MW ops through 9/14/2017

F2 OOS 0600 12/1/2015 to 1700 2/28/2016 for overhaul

F1 OOS 0600 1/3/2016 to 1700 2/28/2016 for Annual

**Maintenance:**

An anchor point holding 26 avian lines that cover sections of the powerhouse failed. See Avian Zone Map for current array.

East fishway dewatered through Feb28. Entrance weir modifications and wheel replacement will continue from last year. Guide repair postponed.

One failed collection channel dewatering pumps on deck for repair and one stuck in stillwell.

East exit weir electrical panel FCQ7 parts on hand. Full panel to arrive in March. Will likely mount panel in gallery. Final hook up as funding allows.

New dewatering pump motor for north fishway entrance expected delivery this spring. Install planned for dewater season 2016/2017.

East fishladder expansion joint leakage increasing with lower temperatures. Material ordered for repair.

Upcoming winter maintenance period workload; adjust 158 weir completed, east entrance weirs wheel replace and lift modifications in progress.

*Long Term repair plans*; 154 -157 weir mods, removal/permanent closure collection channel diffusers, repair failed diffusers - all on hold due to funding

*Fish related /non-fish funded items*; spillway evaluation, spillway crane rehab, spillgate 9 trunnion pin replace, sluiceway chaingate rehab (approx 50% complete), fish unit breaker replace (in planning), and transformer replace (in planning).

All spillway items on Critical Infrastructure list and Unfunded Requirement list. Spill gate 9 repair on hold awaiting funding.

**Studies:**

North fishladder rehab study for rock wall ongoing. Construction 2017/18. FPOM review as needed.

East fishladder emergency backup construction delayed until further notice.

Crane rail replacement on tailrace and intake 2016-17. To be completed within in water work period.

Transformer replacement planning underway. Plans to eliminate fish unit TA transformers. Work to start 2017. Periodic planning meetings continue.

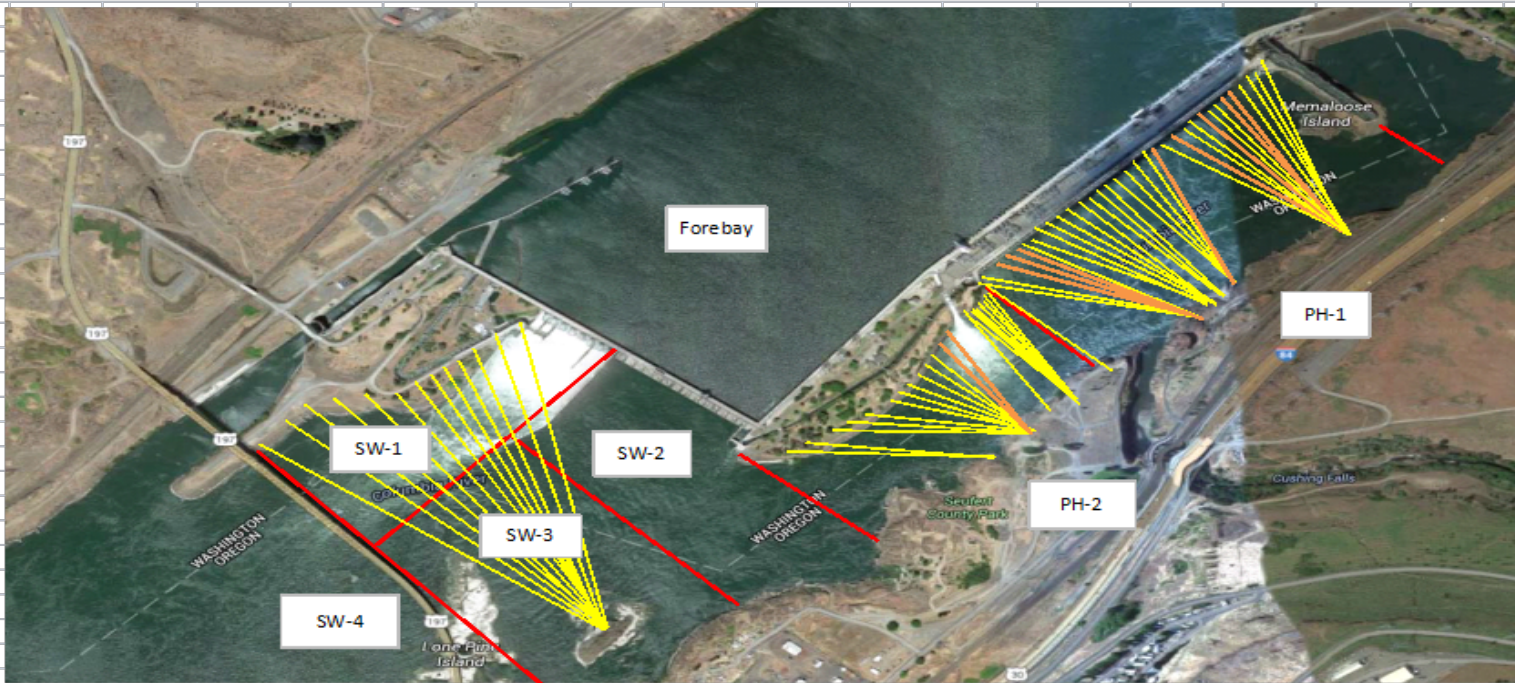
Lamprey minor modification planning site visit Jan26. Potential improvements for trapping at east count station.

**Research/Contractors:**

Normandeau fish counters season done 10/31. Resumes Apr1.

Approved by: Ron Twiner

Operation Project Manager The Dalles Dam



Yellow lines= present avian lines

red lines= Barriers between observation zones

Orange lines= Missing or down avian lines

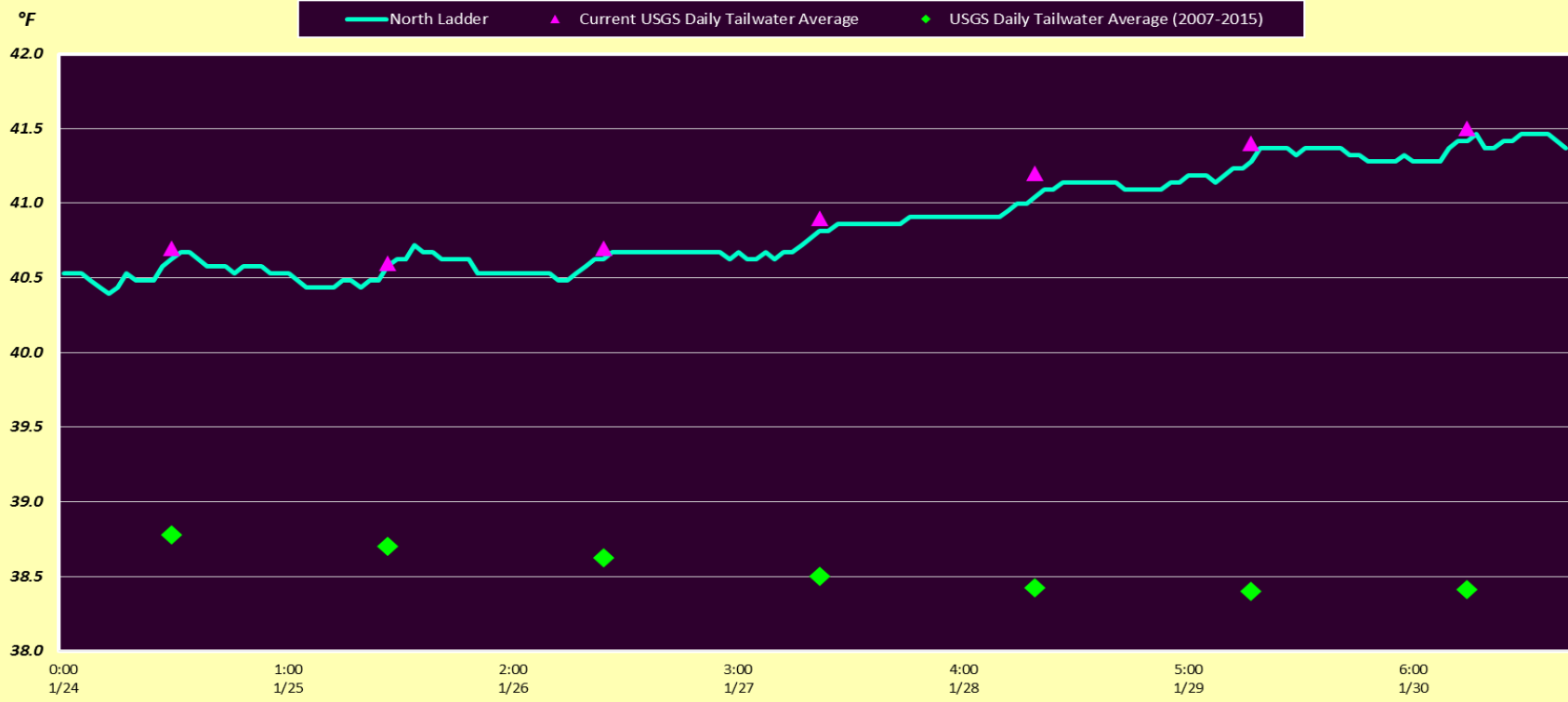
**2016 Piscivorous Bird Counts**

*F=foraging, NF=non-foraging*

1/24/16	EHK	10:42	FB	0	2	0	2	0	0	0	1	0	0	0	22	27	BAEA	
		10:23	PH1	0	0	0	3	0	0	0	0	0	0	0	0	2	5	COME
		10:37	PH2	0	0	0	0	0	0	0	0	0	0	0	0	26	26	BAEA
		10:59	SW1	0	0	0	0	0	0	0	0	0	0	0	0	6	6	5 BAEA & 1 GBH
		10:38	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		10:43	SW3	0	7	0	29	0	0	0	0	0	0	0	0	2	38	BAEA
		10:44	SW4	0	13	0	0	0	0	0	0	0	0	0	0	2	15	BAEA
1/25/16	EHK	13:21	FB	0	0	0	4	0	0	0	0	0	0	0	4	8	BAEA	
		13:03	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0		
		13:21	PH2	0	2	0	25	0	0	0	0	0	0	0	0	0	27	
		13:38	SW1	0	0	0	0	0	0	0	0	0	0	0	0	2	2	GBH
		13:22	SW2	0	0	0	0	0	0	0	0	0	0	0	0	3	3	BAEA
		13:23	SW3	0	2	0	67	0	0	0	0	0	0	0	0	1	70	GBH
		13:24	SW4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1/26/16	GJF	14:30	FB	0	7	11	0	0	0	4	0	0	0	6	12	40	BAEA, 1 COME F	
		14:00	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0		
		14:10	PH2	0	0	0	0	0	0	0	0	0	0	0	40	40	36 BAEA, 4 GBH	
		14:35	SW1	0	0	3	0	0	0	0	0	0	0	0	9	12	BAEA	
		14:12	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0		
		14:13	SW3	0	0	0	62	0	0	0	0	0	0	0	0	0	62	
		14:14	SW4	0	8	0	0	0	0	0	0	0	0	0	0	0	8	
1/27/16	GJF	11:00	FB	0	1	0	0	0	0	0	0	0	0	0	0	1		
		10:30	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0		
		10:35	PH2	0	0	0	0	0	0	0	0	0	0	0	46	46	2 GBH, 44 BAEA	
		11:10	SW1	0	0	0	0	0	0	0	0	0	0	0	12	12	5 GBH, 7 BAEA	
		10:40	SW2	0	0	0	0	0	0	0	0	0	0	5	0	5	BAEA	
		10:41	SW3	0	0	0	51	0	0	0	0	0	0	6	0	57	BAEA	
		10:42	SW4	0	0	0	0	0	0	0	0	0	0	0	0	0		
1/28/16	GJF	12:45	FB	0	0	11	0	0	0	0	0	0	0	7	18		BAEA	
		12:15	PH1	0	2	0	0	0	0	0	0	0	0	0	0	2		
		12:50	PH2	0	0	0	0	0	0	0	0	0	0	0	51	51	4 GBH, 47 BAEA	
		12:30	SW1	0	9	0	0	0	0	0	0	0	0	0	3	12	BAEA	
		12:47	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0		
		12:22	SW3	0	0	0	59	0	0	0	0	0	0	0	0	59		
		12:23	SW4	0	0	0	1	0	0	0	0	0	0	0	0	1		
1/29/16	GJF	13:25	FB	0	5	5	0	0	0	0	0	0	0	6	16		BAEA	
		13:00	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0		
		13:05	PH2	0	0	0	0	0	0	0	0	0	0	0	27	27	2 GBH, 25 BAEA	
		13:30	SW1	0	0	0	0	0	0	0	0	0	0	0	4	4	BAEA	
		13:07	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0		
		13:08	SW3	0	0	0	37	0	0	0	0	0	0	0	0	37		
		13:09	SW4	0	0	0	0	0	0	0	0	0	0	0	0	0		
1/30/16	GJF	13:00	FB	0	4	7	0	0	2	0	0	0	0	4	17		BAEA	
		12:30	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0		
		12:34	PH2	0	0	0	0	0	0	0	0	0	0	0	16	16	2 GBH, 14 BAEA	
		13:05	SW1	0	0	0	0	0	0	0	0	0	0	0	3	3	BAEA	
		13:35	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0		
		13:36	SW3	0	0	0	29	0	0	0	0	0	0	0	0	29		
		13:37	SW4	0	0	0	0	0	0	0	0	0	0	0	0	0		

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

### The Dalles Dam Adult Fish Ladder River/Water Temperatures



Secchi:		USGS: Temperatures
5.0	Sun	40.7
5.0	Mon	40.6
5.0	Tue	40.7
5.0	Wed	40.9
5.0	Thurs	41.2
5.0	Fri	41.4
5.0	Sat	41.5
5.0	AVG	41.0

<http://www.nwd-wc.usace.army.mil/tmt/documents/ops/temp/201601.lcol.html>

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

= Out of criteria

Date:	North Ladder		East Ladder											SPILL ON SEAL											
	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											
1/24	1.4	9.1	East Ladder down for winter maintenance RTS 2/28/16																						
1/25	1.2	9.0																							
1/26	1.4	9.0																							
1/27	1.3	8.9																							
1/28	1.5	9.0																							
1/29	1.4	9.1																							
1/30	1.5	9.0																							
<b>AVG:</b>	<b>1.4</b>	<b>9.0</b>																							

Fishways are inspected twice daily plus one SCADA inspection.