

The Dalles Dam Fishway Status Report

1/24/2016

Inspection Period: 01/17/2016-01/23/2016

THE DALLES DAM



US Army Corps
of Engineers
Portland District

The Dalles Project-Fisheries
P.O. Box 564
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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: 39.9 °F	
			Comments		Secchi: 4.4 feet	
NORTH FISHWAY						
Exit differential	0	≤ 0.5'				
Count station differential	0	≤ 0.3'				
Weir crest depth	7	1.0' ± 0.1'	0.7'	Upper diffuser valve inop and closed, maintenance in progress		
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'				
EAST FISHWAY						
<p>East Ladder down for winter maintenance RTS 2/28/16</p>						
JUVENILE PASSAGE						
Sluiceway operation	2	Units 1, 8, 18	Sluiceways 1-1,18-3 closed to flip gates on 1/22 & 23			
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, count station diffuser valve repair in process.

Turbine trashrack drawdown and velocities completed for the season to resume Mar 1.

Investigating operational changes needed for potential large oil spill in Columbia. Permanent boom purchased for install at east exit.

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. Twenty lines were saved. See Avian Zone Map for the current array pattern. New anchor pole to be fabricated and installed in original location to raise 13 lines that are too low to water.

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 and not hook up due to funding shortage.

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.

North spill attraction flow proposal approved through FPOM for Fish Passage Plan.

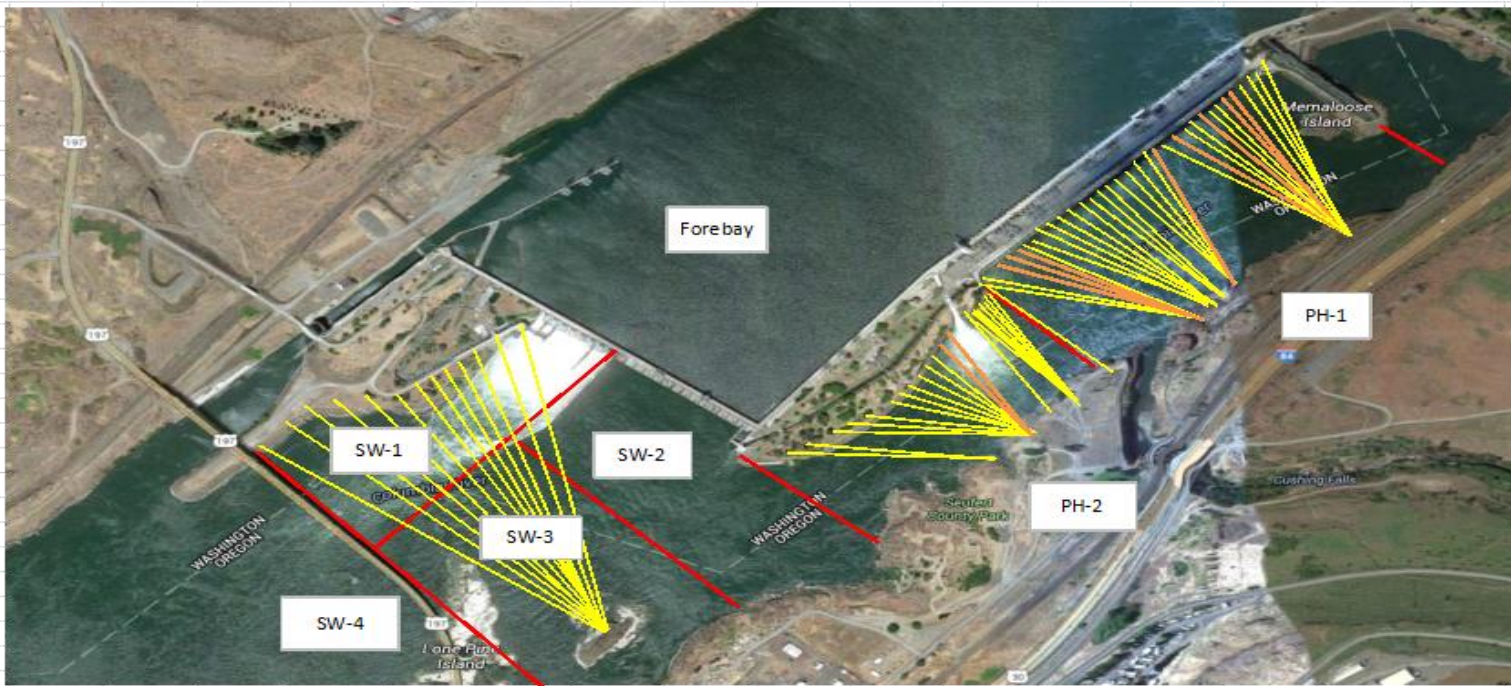
Lamprey minor modification planning site visit in Jan26.

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

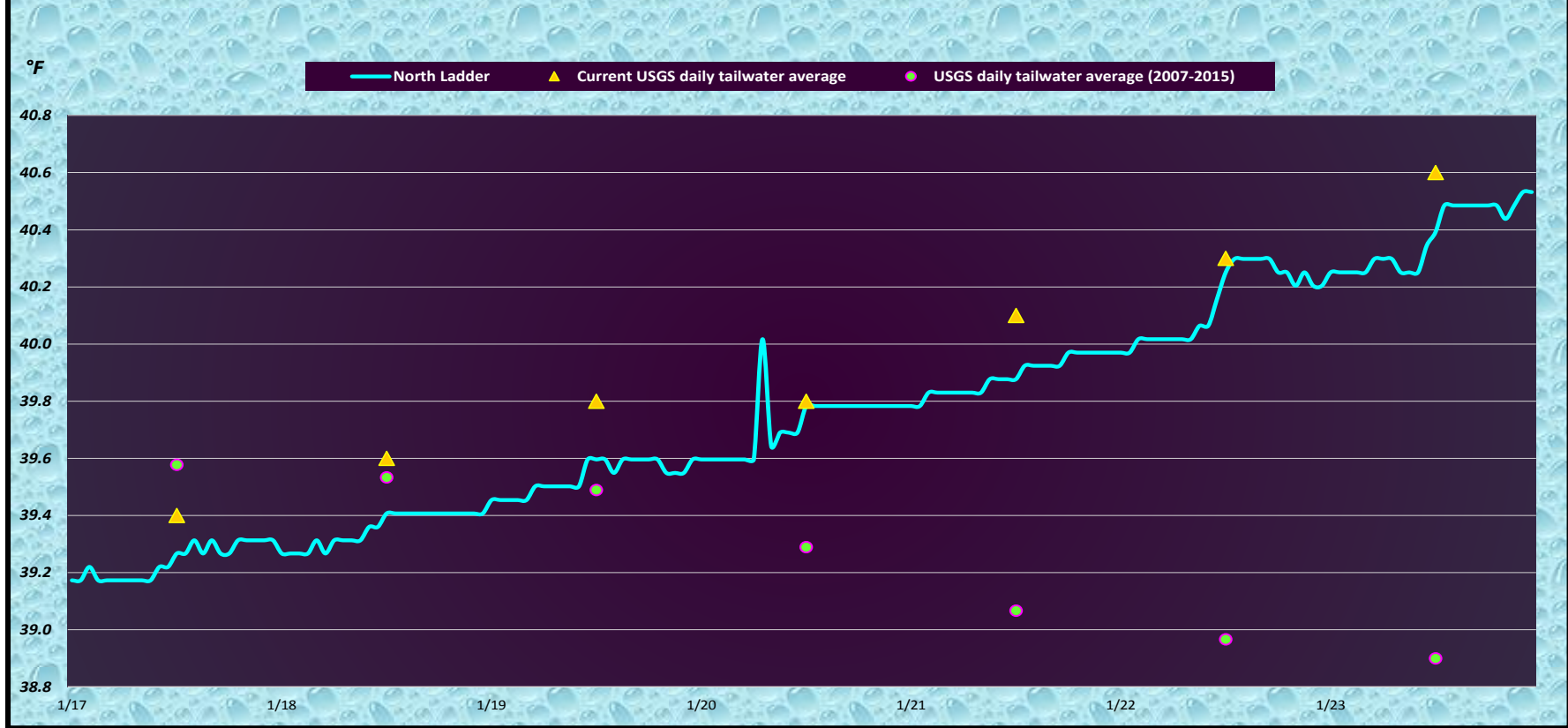
2016 Piscivorous Bird Counts

F=foraging, NF=non-foraging

Date	Observer	Time (24 hr)	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			
1/17/16	GJF	14:10	FB	0	18	6	0	0	0	0	0	0	0	6	10	40	BAEA 7 GBH, 35 BAEA 3 GBH, 7 BAEA	
		13:40	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0		
		13:45	PH2	0	0	0	0	0	0	0	0	0	0	0	42	42		
		13:58	SW1	0	0	0	0	0	0	0	0	0	0	0	10	10		
		13:47	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0		
		13:48	SW3	0	0	0	74	0	0	0	0	0	0	0	0	0		74
		14:49	SW4	0	0	0	0	0	0	0	0	0	0	0	0	0		0
1/18/16	GJF	13:35	FB	0	5	14	0	0	0	2	0	0	0	3	10	34	BAEA COME 24 BAEA, 4 GBH 1 COME F, 4 GBH NF, 5 BAEA NF	
		13:00	PH1	0	3	5	3	0	0	0	0	0	0	0	7	18		
		13:05	PH2	0	0	0	0	0	0	0	0	0	0	0	28	28		
		13:40	SW1	0	0	0	0	0	0	0	0	0	0	1	9	10		
		12:09	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0		
		12:10	SW3	0	0	0	76	0	0	0	0	0	0	0	0	0		76
		12:11	SW4	0	3	0	4	0	0	0	0	0	0	0	0	0		7
1/19/16	GJF	14:25	FB	0	6	0	3	0	0	0	0	0	0	0	6	15	BAEA 6 GBH, 49 BAEA 4 GBH, 4 BAEA	
		13:55	PH1	0	0	0	5	0	0	0	0	0	0	0	0	5		
		13:58	PH2	0	0	0	0	0	0	0	0	0	0	0	55	55		
		14:20	SW1	0	0	0	0	0	0	0	0	0	0	0	8	8		
		14:01	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0		
		14:02	SW3	0	0	0	63	0	0	0	0	0	0	0	0	0		63
		14:03	SW4	0	0	0	0	0	0	0	0	0	0	0	0	0		0
1/20/16	GJF	10:30	FB	0	6	15	0	0	0	3	0	0	0	0	19	43	BAEA BAEA 4 GBH, 53 BAEA 13 BAEA, 1 GBH	
		10:00	PH1	0	4	2	5	0	0	0	0	0	0	1	0	12		
		10:02	PH2	0	0	0	0	0	0	0	0	0	0	0	57	57		
		10:25	SW1	0	1	0	0	0	0	0	0	0	0	0	14	15		
		10:10	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0		
		10:11	SW3	0	0	0	51	0	0	0	0	0	0	0	0	0		51
		10:12	SW4	0	0	0	0	0	0	0	0	0	0	0	0	0		0
1/21/16	JWR	13:52	FB	1	0	9	0	0	0	0	0	0	0	2	26	38	BAEA 2 GBHE, 36 BAEA	
		12:24	PH1	1	1	0	0	0	0	0	0	0	0	0	0	2		
		12:32	PH2	0	0	0	0	0	0	0	0	0	0	0	38	38		
		13:44	SW1	0	29	0	0	0	0	0	0	0	0	0	0	0		29
		12:34	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0		0
		12:35	SW3	0	2	0	61	0	0	0	0	0	0	0	0	0		63
		13:44	SW4	0	56	0	0	0	0	0	0	0	0	1	1	58		
1/22/16	EHK	10:41	FB	0	1	4	0	0	0	0	0	0	0	0	11	16	BAEA BAEA BAEA 60 BAEA & 2 GBH BAEA	
		10:11	PH1	0	0	0	0	0	0	0	0	0	0	0	1	1		
		10:34	PH2	0	0	0	0	0	0	0	0	0	0	0	62	62		
		10:49	SW1	0	0	0	0	0	0	0	0	0	0	0	12	12		
		10:20	SW2	0	1	0	0	0	0	0	0	0	0	0	0	1		
		10:22	SW3	0	0	0	25	0	0	0	0	0	0	0	0	0		25
		10:39	SW4	0	0	0	0	0	0	0	0	0	0	0	0	0		0
1/23/16	EHK	10:31	FB	0	5	0	0	0	0	0	0	0	0	0	15	20	15 BAEA 61 BAEA & 3 GBH 4 GBH 1 BAEA & 1 GBH 4 BAEA	
		10:17	PH1	0	0	0	2	0	0	0	0	0	0	0	0	2		
		10:24	PH2	0	0	0	0	0	0	0	0	0	0	0	64	64		
		10:30	SW1	0	3	0	0	0	0	0	0	0	0	0	4	7		
		10:34	SW2	1	0	0	0	0	0	0	0	0	0	0	0	1		
		10:36	SW3	0	1	0	56	0	0	0	0	0	0	0	2	59		
		10:35	SW4	0	0	0	0	0	0	0	0	0	0	0	4	4		

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

The Dalles Dam adult Fish Ladder River/Water Temperatures



Secchi:		USGS: Temperatures
4.0	Sun	39.4
5.0	Mon	39.6
4.0	Tue	39.8
5.0	Wed	39.8
3.0	Thurs	40.1
5.0	Fri	40.3
5.0	Sat	40.6
4.4	AVG	39.9

<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										
1/17	1.1	9.1	East Ladder down for winter maintenance RTS 2/28/16																					
1/18	1.5	9.0																						
1/19	1.5	9.1																						
1/20	1.5	9.0																						
1/21	1.4	9.1																						
1/22	1.4	8.9																						
1/23	1.4	9.1																						
AVG:	1.4	9.0																						

Fishways are inspected twice daily plus one SCADA inspection.