

The Dalles Dam Fishway Status Report

1/10/2016

Inspection Period: 01/03/2016-01/09/2016

THE DALLES DAM



US Army Corps
of Engineers
Portland District

The Dalles Project-Fisheries
P.O. Box 564
The Dalles, OR 97058-9998
Phone: 541-506-3800

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: 6		Temperature: 39.9 °F	
			Comments		Secchi: 5.0 feet	
NORTH FISHWAY						
Exit differential	0	≤ 0.5'				
Count station differential	0	≤ 0.3'				
Weir crest depth	6	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')	9.1			
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	0	Units 1, 8, 18	Sluiceways 1-1,18-3 open. Other gates and units 1, 8, 18 all closed after 12/15			
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. 50-60 Bald eagles on project
Many birds around project. No hazing activity. Hazing to resume Apr15. Hazing from boat to be included 2016.

Operations:

East fish ladder dewatered on Jan 5. Two juvenile chinook and 35 juvenile steelhead were released to the tailrace. One lamprey was released to forebay. There was one juvenile steelhead mort. On Jan 7, the entrances, collection channel and transportation channel were dewatered. Two adult steelhead and 150 lamprey were released to forebay. Nine sturgeon and 5 juvenile steelhead were released to tailrace. There were 4 lamprey morts.
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:

East fishway dewatered Jan 5 - Jan 7. 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. Funding not presently available for installation. Will likely mount panel in gallery and not hook up.
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. In house repair to be attempted depending on funding.
Upcoming winter maintenance period workload; adjust 158 weir, finish entrance weir wheel replace, east entrance E3 weir modifications (add weight).
Long Term repair plans; 154 -157 weir replacement, removal/permanent closure of collection channel diffusers, repair north failed diffusers,
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 Jan.

Research/Contractors:

Normandeau fish counters season done 10/31.

Approved by: Ron Twiner
Operation Project Manager The Dalles Dam

2015 Piscivorous Bird Counts

F = foraging NF = non-foraging

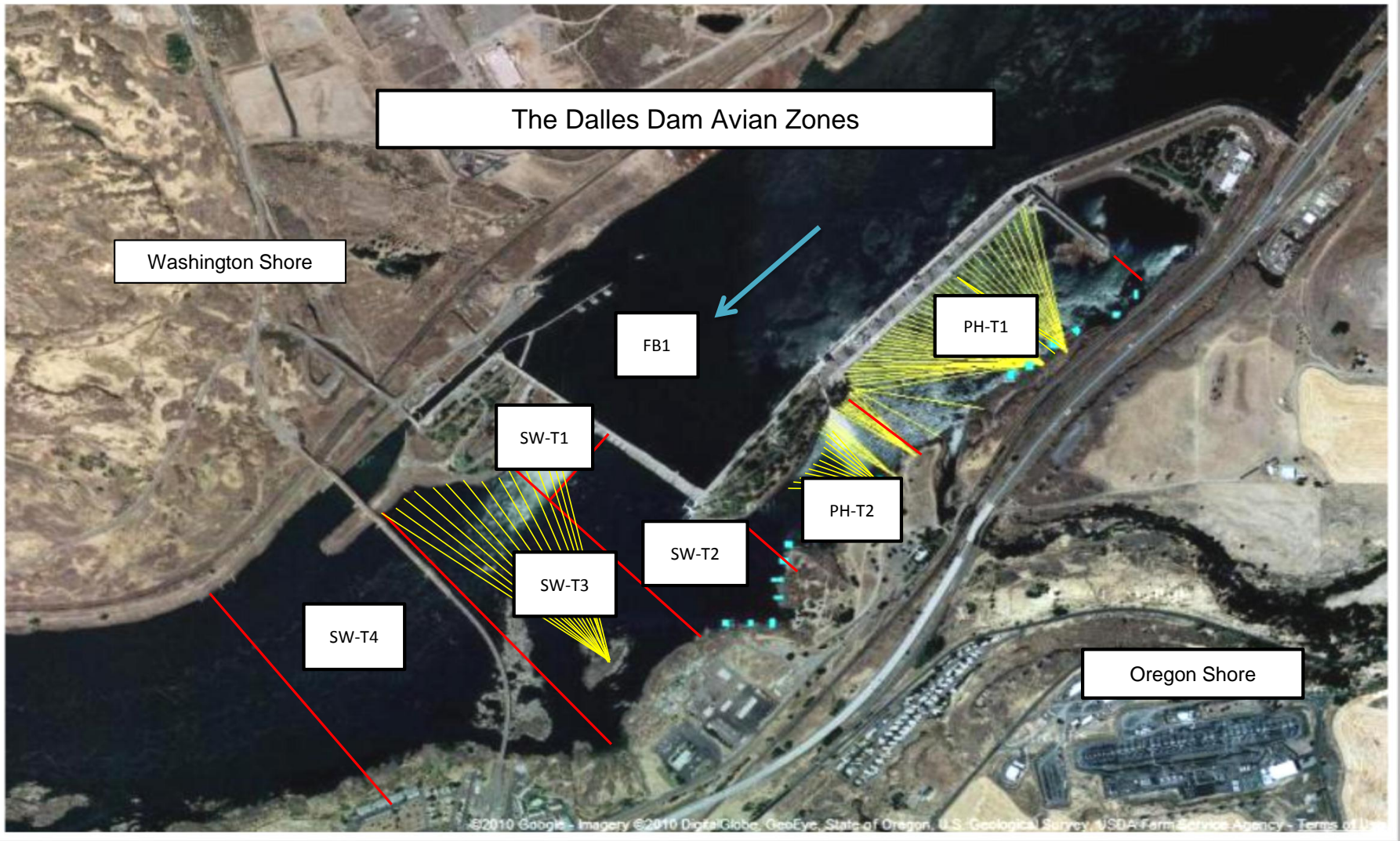
Date	Observer	Time (24 hr)	Zone	Gull		Cormorant		Caspian tern		Grebe		Pelican		Other		Total birds in zone	Notes
				F	NF	F	NF	F	NF	F	NF	F	NF	F	NF		
1/3/16	GJF	14:00	FB	0	7	13	0	0	0	9	0	0	0	0	6	35	BAEA COME 8 GBH, 52 BAEA
		13:40	PH1	26	4	9	55	0	0	0	0	0	0	0	23	117	
		13:43	PH2	0	1	0	0	0	0	0	0	0	0	0	60	61	
		14:10	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	
		13:45	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	
		13:46	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	
		13:47	SW4	0	365	0	67	0	0	0	0	0	0	0	0	0	
1/4/16	GJF	13:50	FB	0	10	25	0	0	0	11	0	0	0	5	10	61	BAEA COME 4 GBH, 51 BAEA 3 GBH, 12 BAEA COME
		13:15	PH1	21	18	32	74	0	0	0	0	0	0	43	4	192	
		13:20	PH2	0	0	0	0	0	0	0	0	0	0	0	55	55	
		13:55	SW1	0	0	0	0	0	0	0	0	0	0	0	15	15	
		13:23	SW2	0	0	0	0	0	0	0	0	0	0	1	0	1	
		13:24	SW3	0	27	0	96	0	0	0	0	0	0	0	0	123	
		13:25	SW4	0	81	0	12	0	0	0	0	0	0	0	0	93	
1/5/16	GJF	13:24	FB	0	0	6	0	0	0	34	0	0	0	0	9	49	BAEA COME 5 GBH, 30 BAEA 12 BAEA, 5 GBH, 7 COME COME
		14:15	PH1	1	7	45	0	0	0	0	0	0	0	8	0	61	
		12:55	PH2	0	1	0	1	0	0	0	0	0	0	0	35	37	
		13:40	SW1	0	0	0	0	0	0	0	0	0	0	7	17	24	
		13:00	SW2	0	0	0	0	0	0	0	0	0	0	5	0	5	
		13:01	SW3	0	0	0	64	0	0	0	0	0	0	0	0	64	
		13:02	SW4	0	26	0	15	0	0	0	0	0	0	0	0	41	
1/6/16	GJF	14:20	FB	0	8	15	0	0	0	0	9	0	0	0	12	44	BAEA COME 5 GBH, 40 BAEA GBH
		14:00	PH1	21	5	15	31	0	0	0	0	0	0	22	4	98	
		14:19	PH2	0	0	0	0	0	0	0	0	0	0	0	45	45	
		14:21	SW1	0	0	0	0	0	0	0	0	0	0	0	1	1	
		14:23	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	
		14:24	SW3	0	0	0	84	0	0	0	0	0	0	0	0	84	
		14:25	SW4	0	15	0	0	0	0	0	0	0	0	0	0	15	
1/7/16			NO COUNT East ladder dewater														
1/8/16	JWR	9:36	FB	2	1	7	0	0	0	0	22	0	0	0	25	57	3 BAEA-F, 29 BAEA-NF, 5 GBHE-NF COME COME BAEA BAEA
		10:02	PH1	0	23	0	15	0	0	0	0	0	0	0	48	86	
		9:29	PH2	0	0	0	0	0	0	0	0	0	0	3	24	27	
		9:43	SW1	0	0	0	0	0	0	0	0	0	0	1	0	1	
		9:30	SW2	0	0	0	0	0	0	0	0	0	0	0	8	8	
		9:32	SW3	0	0	0	64	0	0	0	0	0	0	0	0	64	
		9:46	SW4	0	0	0	0	0	0	0	0	0	0	0	1	1	
1/9/16	JWR	10:52	FB	2	3	4	0	0	0	0	16	0	0	0	15	40	BAEA 1 GBHE, 35 COME 7 GBHE, 22 BAEA BAEA
		11:06	PH1	8	1	0	18	0	0	0	0	0	0	0	36	63	
		11:11	PH2	0	0	0	0	0	0	0	0	0	0	0	0	29	
		9:39	SW1	0	0	0	0	0	0	0	0	0	0	0	6	6	
		11:15	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	
		11:16	SW3	0	0	0	67	0	0	0	0	0	0	0	0	67	
		9:40	SW4	0	15	0	0	0	0	0	0	0	0	0	0	15	

key to other picivorous bird:

BAEA=Bald Eagle

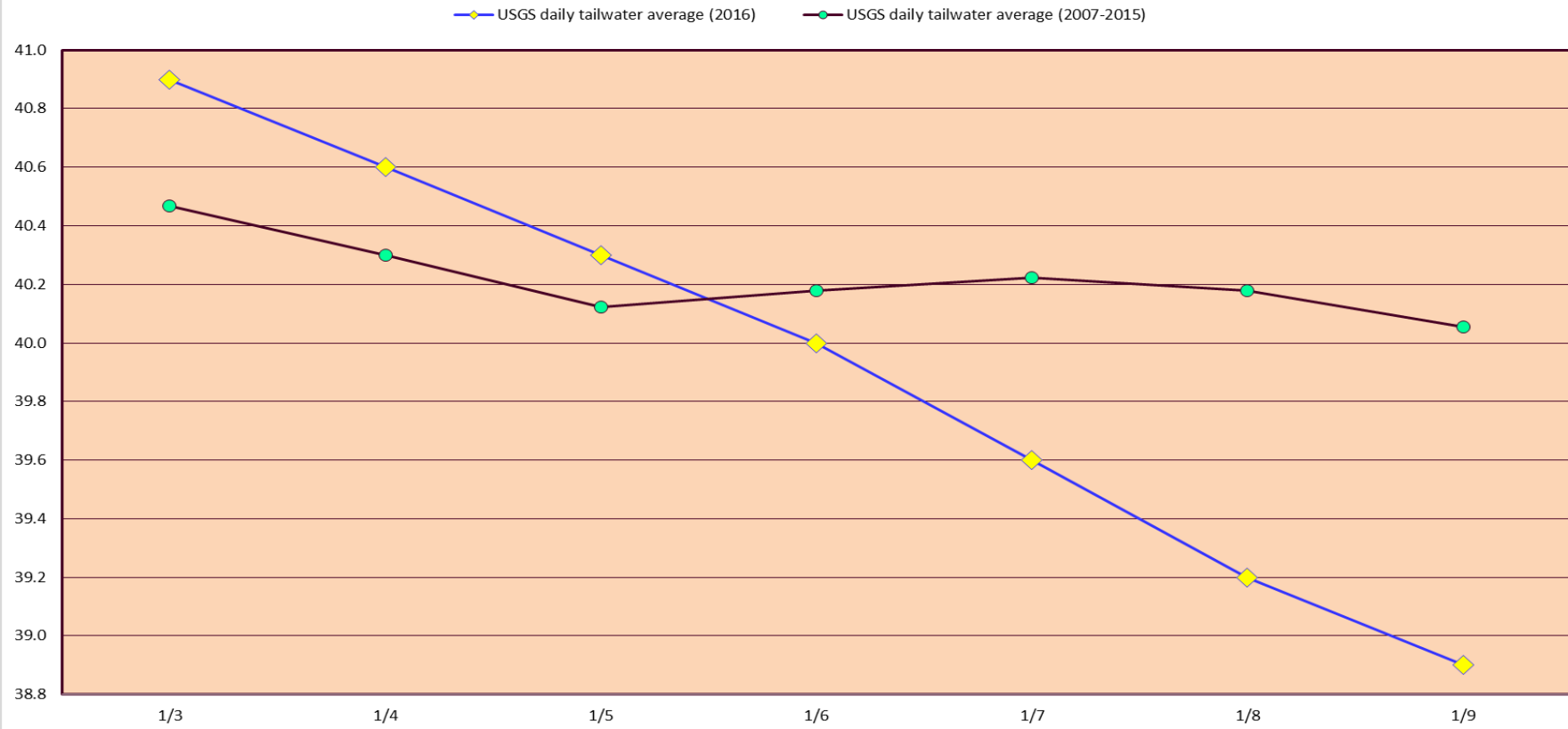
COME=Common Merganser

GBHE=Great Blue Heron



Avian lines in yellow, zones in red, river flow in blue.

The Dalles Dam-USGS daily tailwater temperatures



Secchi:		USGS: Temperatures
5.0	Sun	40.9
5.0	Mon	40.6
5.0	Tue	40.3
5.0	Wed	40.0
5.0	Thurs	39.6
5.0	Fri	39.2
5.0	Sat	38.9
5.0	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										
	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
1/3	1.2	9.3	East Ladder down for winter maintenance RTS 2/28/16											
1/4	1.4	9.2												
1/5	1.4	9.0												
1/6	1.5	9.1												
1/7	East ladder work													
1/8	1.4	9.1												
1/9	1.4	9.0												
AVG:	1.4	9.1												

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Fishways are inspected twice daily plus one SCADA inspection.