

The Dalles Dam Fishway Status Report

1/17/2015
 Inspection Period: 1/11/2014 to 1/17/2015

THE DALLES DAM



**US Army Corps
 of Engineers**
 Portland District

The Dalles Project-Fisheries
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Fishways are inspected once per day during the winter maintenance period.

The Dalles Dam	Inspections Out of Criteria	Criteria Limit	Total Number of Inspections: 7		Temperature: 40.2 F
			Comments		Secchi: 5.0 feet
NORTH FISHWAY					
Exit differential	0	≤ 0.5'			
Count station differential	0	≤ 0.3'			
Weir crest depth	0	1.0' ± 0.1'			
Entrance differential	0	1.0' - 2.0'	Average	1.4	
Entrance weir N1	0	depth (≥ 8')	Average	9.3	
Entrance weir N2	0	Closed			
PUD Intake differential	0	≤ 0.5'			
EAST FISHWAY - Out of Service Dec 1, 2014 through end of Jan 2015 for winter maintenance.					
Exit differential	NA	≤ 0.5'			
Removable weirs 154-157	NA	Per forebay	Auto adjusts 1' increments.		
Weir 158-159 differential	NA	1.0' ± 0.1'			
Count station differential	NA	≤ 0.3'			
Weir crest depth	NA	1.0' ± 0.1'			
Junction pool weir JP6	NA	depth (≥ 7')	Average	N/A	
East entrance differential	NA	1.0' - 2.0'	Average	N/A	
Entrance weir E1	NA	No criteria	Average	N/A	Manually adjusted as needed.
Entrance weir E2	NA	depth (≥ 8')	Average	N/A	
Entrance weir E3	NA	depth (≥ 8')	Average	N/A	
Collection channel velocity	NA	1.5 - 4 fps	Average	N/A	
Transportation channel velocity	NA	1.5 - 4 fps	Average	N/A	Fishway velocities concluded Dec 1 and will resume Mar 1, 2015 as per Fish Passage Plan.
North channel velocity	NA	1.5 - 4 fps	Average	N/A	
South channel velocity	NA	1.5 - 4 fps	Average	N/A	
West entrance differential	NA	1.0' - 2.0'	Average	N/A	
Entrance weir W1	NA	depth (≥ 8')	Average	N/A	
Entrance weir W2	NA	depth (≥ 8')	Average	N/A	
Entrance weir W3	NA	No criteria	Closed		
South entrance differential	NA	1.0' - 2.0'	Average	N/A	
Entrance weir S1	NA	depth (≥ 8')	Average	N/A	
Entrance weir S2	NA	depth (≥ 8')	Average	N/A	
JUVENILE PASSAGE					
Sluicgate operation	0	per FPP	Sluicgates 1-1 and 18-3 are open to forebay, endgate is closed		
Turbine trashrack drawdown	NA	<1.5', wkly	Resume on March 1		
Spill volume	NA	40% ±1%	Average	On seal.	
Spill Pattern	NA	per FPP	Spillbay	On seal.	
Turbine Unit Priority.	NA	per FPP	Fish passage season resumes March1		
Turbine 1% Efficiency	NA	per FPP	Fish passage season resumes March1		

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

Bird observation data collected once daily. High numbers of Eagles. Refer to Avian Zone Map.

Operations:

Gatewell drawdown completed for the season and will resume March 1, 2015.

Current Outages:

T8 (MU15 & MU16) de-rated to single unit full load ops through 2017.

East Fish Ladder out of service 12/1/2014 through end of Jan for annual maintenance.

Fish unit F1 out of service 12/1/2014 to 1/29/2015 for overhaul maintenance.

Fish unit F2 out of service 12/1/2014 to 1/29/2015 for annual maintenance.

Maintenance:

New exit weir 158 installed. In process of calibrating.

W1 weir guide damage repaired with new steel. Epoxy repair trial on E2 underway. Repair on remaining weir guides postponed to next year.

E2 weir gearbox swapped out for oil leak repair. Removed gearbox in shop for seal replacement.

Three weirs removed for wheel replacement with high density plastic. Near complete.

Three collection channel dewatering pumps needing rehab pulled on deck. Another is stuck making 2 of 6 not removable for repair.

Permanent east fishway exit boom delivered. Contract underway for installation before March. Further assessment for oil spill protection continues.

Long term repair plans awaiting funding; Upgrade east exit weirs 154-157, north fishladder rock stabilization, remove collection channel diffusers

North fish ladder rock wall stabilization project assigned PM. Expect kickoff meeting and site visit in Feb. Date to be determined.

Fish related but non-fish funded items; spillway evaluation, spillway crane rehab, spillgate 9 wire rope replacement, HDC update fish unit reliability assessment, planning upgrade fish unit breakers and fish unit transformer replacement.

All spillway items on Critical Infrastructure list and Unfunded Requirement list.

Studies:

Investigating PIT tag 15 mile creek steelhead overshooting The Dalles. Coordination discussion underway for potential sluiceway operation. .

Investigating de-icing alternatives and sensitive locations near fishways. SOP and area map complete.

Investigating north fish count station mods for visibility improvement and use of video. Equipment purchase underway.

EFL Backup; Plans/Specs 60% review underway. Includes 10'pipe from forebay to AWS. A 1400cfs flow test planned in Feb. Product Development

PUD 'freedom' second turbine proposal underway. Field test proposal for summer 2015 presented at Dec FPOM. Proposal moved to SRWG.

Spill test for more fish passage to north fishladder completed. Results showed benefit. FPOM discussion continues for when to implement.

Research/Contractors:

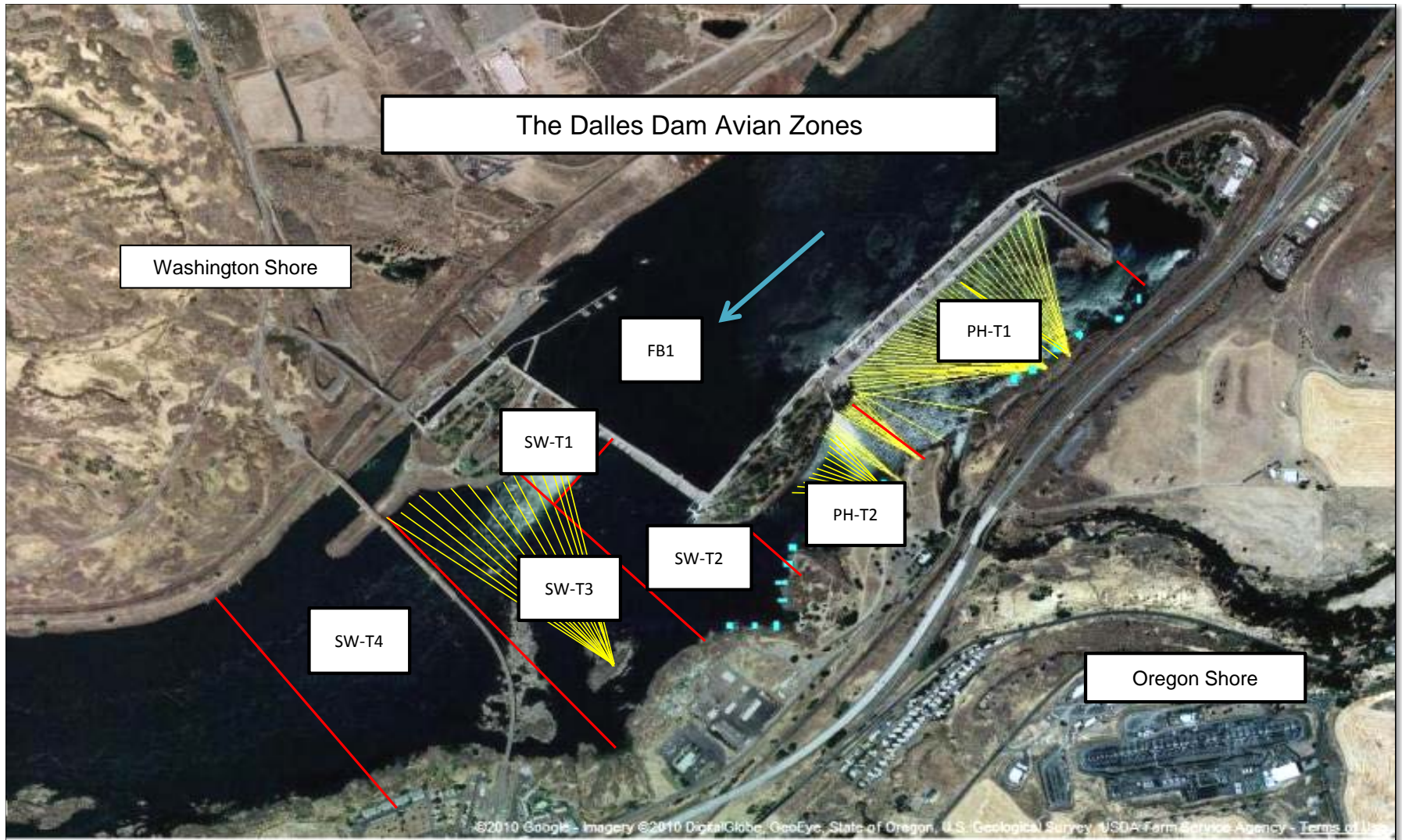
PSMFC PIT tag monitoring continues at north count station. Outage maintenance as needed for east count station antenna.

Normandeau fish counters to resume Apr1. East bathroom minor upgrades planned this winter.

University of Idaho maintaining antennas. Continuing downloads of winter steelhead.

Approved by: Ron Twiner

Operation Project Manager The Dalles Dam



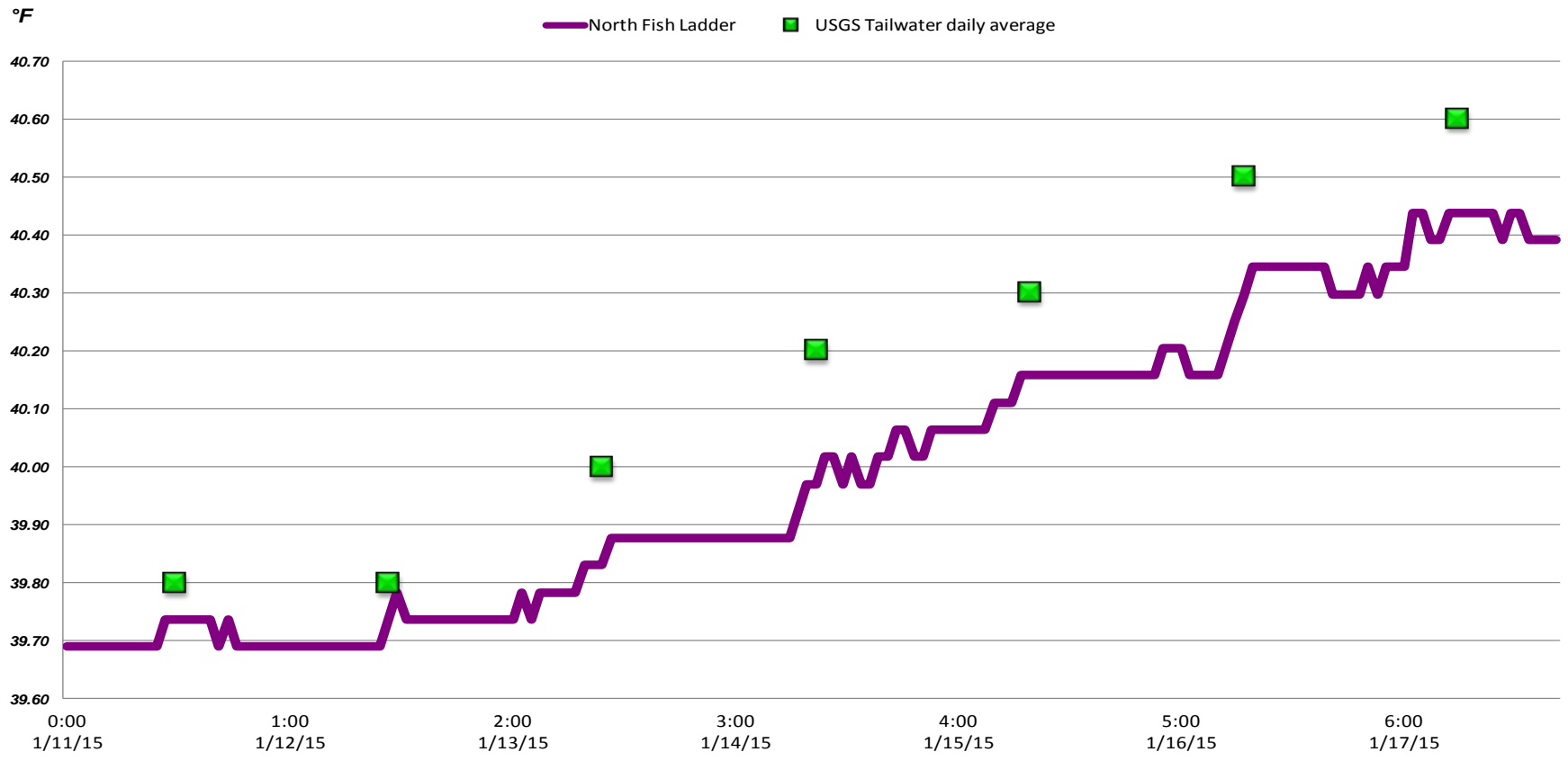
Avian lines in yellow, zones in red, river flow in blue.

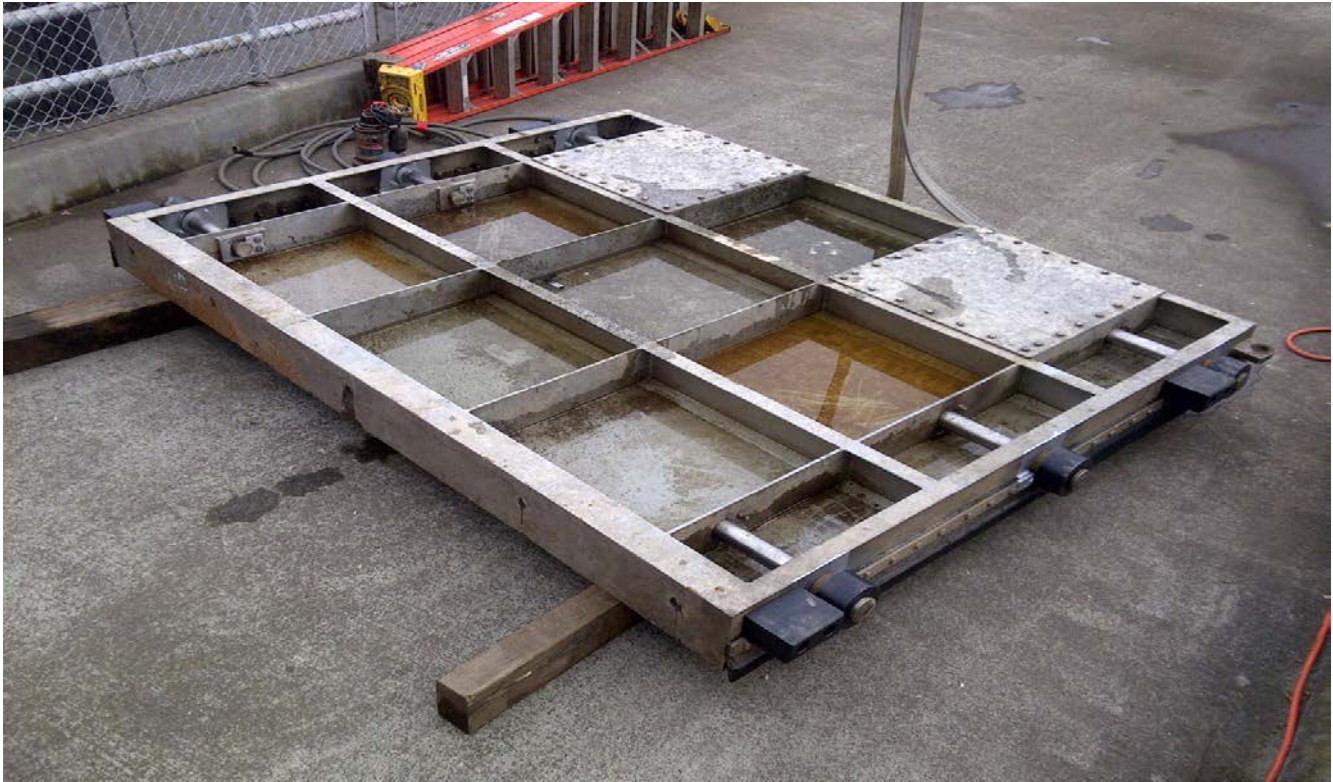
2014 Piscivorous Bird Counts

F=foraging, NF=non-foraging

Date	Observer	Time (24 hr)	Zone	Gull		Cormorant		Caspian tern		Other		Total birds in zone	Notes
				F	NF	F	NF	F	NF	F	NF		
1/11/15	PSK	15:16	FB	0	3	0	0	0	0	0	11	14	6 BAEA, 4 COME, 1 GBHE COME 4 GBHE, 18 BAEA
		14:32	PH1	0	0	0	0	0	0	0	3	3	
		14:38	PH2	0	1	0	0	0	0	0	22	23	
		15:26	SW1	0	21	0	0	0	0	0	0	21	
		14:52	SW2	0	0	0	2	0	0	0	0	2	
		14:55	SW3	0	0	0	64	0	0	0	0	64	
15:36	SW4	0	53	0	7	0	0	0	0	60			
1/12/15	JWR	14:03	FB	0	1	4	5	0	0	1	16	27	BAEA
		13:32	PH1	3	1	0	3	0	0	0	0	7	10 BAEA, 1 GBHE
		13:40	PH2	0	0	0	0	0	0	0	11	11	
		13:58	SW1	0	68	0	0	0	0	0	0	68	
		13:49	SW2	0	0	0	0	0	0	0	0	0	BAEA BAEA
		13:52	SW3	0	0	0	83	0	0	0	1	84	
13:55	SW4	0	3	0	6	0	0	0	0	1	10		
1/13/15	PSK	9:16	FB	0	0	0	4	0	0	0	4	8	BAEA
		8:33	PH1	0	0	0	0	0	0	0	3	3	COME
		8:40	PH2	0	0	0	0	0	0	0	24	24	1 GBHE, 23 BAEA
		9:39	SW1	0	4	0	0	0	0	0	1	5	GBHE
		8:46	SW2	0	1	0	1	0	0	0	5	7	4 BAEA, 1 GREBE
		8:49	SW3	0	0	0	81	0	0	0	0	81	
9:46	SW4	0	0	0	5	0	0	0	0	5			
1/14/15	PSK	15:02	FB	0	1	0	18	0	0	0	0	19	COME BAEA roosting on spillwall
		14:33	PH1	0	0	0	0	0	0	0	3	3	
		14:36	PH2	0	1	0	0	0	0	0	15	16	
		15:11	SW1	0	118	0	0	0	0	0	0	118	
		14:44	SW2	0	20	0	0	0	0	0	0	20	GREBE BAEA
		14:46	SW3	0	0	0	47	0	0	0	2	49	
15:19	SW4	0	0	0	25	0	0	0	1	26			
1/15/15	JWR	8:54	FB	0	0	0	8	0	0	1	11	20	BAEA
		8:26	PH1	0	1	0	0	0	0	0	0	1	4 GBHE, 13 BAEA
		8:30	PH2	0	0	0	0	0	0	0	17	17	
		8:49	SW1	0	0	0	0	0	0	0	0	0	
		8:31	SW2	0	0	0	0	0	0	0	0	0	BAEA
		8:33	SW3	0	0	0	54	0	0	0	0	54	
8:37	SW4	0	0	0	0	0	0	0	2	2			
1/16/15	EHK	14:58	FB	0	0	0	3	0	0	0	0	3	7 GBH & 2 BE
		14:16	PH1	0	0	0	3	0	0	0	0	3	
		14:22	PH2	0	0	0	1	0	0	7	2	10	
		14:42	SW1	0	62	0	0	0	0	0	0	62	
		14:28	SW2	0	0	0	0	0	0	0	0	0	
		14:30	SW3	0	0	0	100	0	0	0	0	100	
14:59	SW4	0	0	0	16	0	0	0	0	16			
1/17/15	EHK	10:18	FB	0	0	0	10	0	0	0	2	12	2 BAEA
		9:52	PH1	2	0	0	2	0	0	0	0	4	2 GBH & 24 BAEA
		9:58	PH2	0	0	0	0	0	0	2	24	26	
		10:20	SW1	0	7	0	0	0	0	0	0	7	
		10:02	SW2	0	0	0	0	0	0	0	2	2	1 GBH & 1 BAEA 5 BAEA 2 BAEA
		10:03	SW3	0	0	0	53	0	0	0	5	58	
10:21	SW4	0	0	0	10	0	0	0	2	12			

The Dalles Dam River/Water Temperatures





One of 3 east entrance weir E3 leaf wheels replaced and rub block installed.
Ready for installation