

The Dalles Dam Fishway Status Report

February 17th, 2019

Inspection Period: Feb. 10 - Feb. 16, 2019

THE DALLES DAM



US Army Corps
of Engineers
Portland District

The Dalles Project-Fisheries
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The Dalles Dam	Inspections Out of Criteria	Criteria Limit	Total Number of Inspections: 15	Temperature: 37.7 °F
Comments:				
Secchi: 5+ feet				
NORTH FISHWAY - Returned with bypass flow Feb 7				
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'	1.5	
Entrance weir N1	0	depth (≥ 8')	9.1	
Entrance weir N2	0	Closed		
PUD Intake differential	0	≤ 0.5'		
EAST FISHWAY - Fish units off, AWS off Feb7				
Exit differential	0	≤ 0.5'		
Removable weirs 154-157	8	Per forebay	Weir 157 cable failure. When forebay < 159.5 east exit in criteria	
Weir 158-159 differential	1	1.0' ± 0.1'	Deep due to 157 failure and lower forebay.	
Count station differential	0	≤ 0.3'		
153 Weir crest depth	1	1.1' ± 0.1'	Result of 157 failure	
Junction pool weir JP6	0	0.0		
East entrance differential	4	1.0' - 2.0'		
Entrance weir E1	closed	No criteria		
Entrance weir E2	0	depth (≥ 8')		
Entrance weir E3	0	depth (≥ 8')		
Collection channel velocity	closed	1.5 - 4 fps		
Transportation channel velocity	closed	1.5 - 4 fps		
North channel velocity		1.5 - 4 fps	3.0fps on 2/7/2019	
South channel velocity	closed	1.5 - 4 fps		
West entrance differential	15	1.0' - 2.0'	FISHLADDER FLOW ONLY	
Entrance weir W1	15	depth (≥ 8')		
Entrance weir W2	15	depth (≥ 8')		
Entrance weir W3	closed	No criteria		
South entrance differential	15	1.0' - 2.0'		
Entrance weir S1	15	depth (≥ 8')		
Entrance weir S2	15	depth (≥ 8')		
JUVENILE PASSAGE				
Sluicelgate operation	0	Units 1, 18	MU1 (1-1) & MU18 (18-3) endgate closed	
Turbine trashrack drawdown	0	<1.5', biwklly		
Spill volume/pattern	0	None		
Turbine Unit Priority	0	per FPP	Bus maintenance work	
Turbine 1% Efficiency	0	per FPP		

OTHER ISSUES:

Predators;

USDA contract in progress. Possible loss of ability to haze sea lions near entrances due to authority issues. Requires NOAA approval.
No Sea Lion observations

Operation:

North fish ladder returned to service 2/7 with bypass flow for entrance attraction.
East fishladder in service. AWS closed 2/7 with return of north fishway. Fish units remain out of service for breaker replacement.

Current Outages;

FU1 and FU2 OOS for annual/overhaul maintenance and breaker replace. RTS slipped from 1/9/19 to approximately mid March.
MU1 and MU2 (T1 transformer) OOS for FU breaker replace. RTS 2/26/19 - Schedule slipped from 1/9/19
MU5 forced OOS blade seals and T3 transformer replace. RTS 7/12/2019.
MU6 OOS annual and T3 transformer replace. RTS 7/12/2019.
MU7 and MU8 OOS annual. RTS 2/20/2019
MU13 OOS OOS annual. RTS 3/29/2019
MU14 OOS overhaul. RTS 3/29/2019
MU15 OOS exciter replace. RTS 2/27/2019
MU16 OOS exciter replace. RTS 3/28/2019.
MU17 and MU18 OOS MU16 exciter replace. RTS 2/22/2019.
MU19 and MU20 forced OOS transformer acetylene production. RTS 10/24/2019

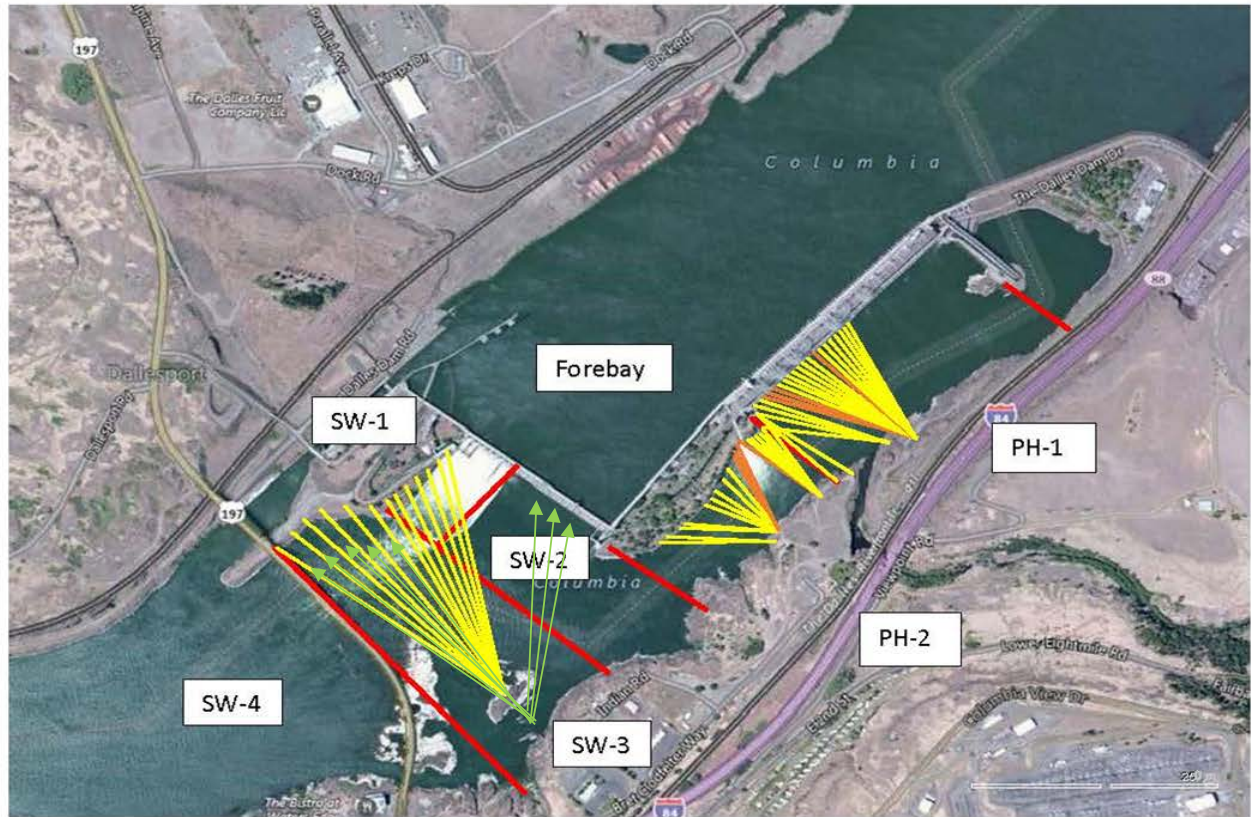
Maintenance

Weir 157 cable failure causing some ladder flow criteria problems. Repair last week of Feb.
East and north count station electrical upgrade complete.
Collection channel dewatering pumps 5 and 6 removed for rehab. Housing crack repair underway.
Fishway automation equipment assembly starting. Install winter of 2019/20
Diffuser valve removal evaluation ongoing. Planning underway for rehab.
Vegetation removal from south channel rock walls complete. Goats to remove vegetation on top side in March.
Fish related /non-fish funded items; Spillway assessment underway. Spillway crane replace and spillgate 9 repair included.
All spillway items on Critical Infrastructure. Spillgate 9 on large cap list, projected for 2022. Comprehensive spillway assessment review underway.

Research/Construction/Contractors:

Bathymetry of spillwall and spill basin completed. District dive/ROV personnel inspected spill basin w/ ROV unit (12/11), awaiting results
Video monitoring in progress at east count station for AWS operation. Review underway.
AWS *construction* - Follow on construction items identified. Crack found on electrical housing for motor drive of 10' valve, which does not prevent operation.
PSMFC weekly sampling for North Wasco County PUD resumes 4/1/19. New sample collection tank installation postponed to winter 2019/20.
PITAGS North and east fishladder data collection at count stations continues.
Fish Counters - Likely start with video 4/1/19 until contractor issues resolved. Fish Field Unit to provide support.
Pikeminnow dam angling - Caught 1785 YTD. Fishing resumes next spring. Debate over bass and walleye catch and release continues.
ODFW monthly fishway inspections concluded 10/16. Awaiting annual report.
Lamprey minor mods - Rounded weir caps completed on all entrance weirs. Site visit for potential LPS planning.
Univ of Idaho lamprey radiotelemetry - Second season of lamprey passage night flow reduction test to resume in May.
Lamprey trapping by tribes - Project to construct single lift hoist mechanism prior to next trapping season.
Fish unit breaker replace - Prep work in progress. Potential delay until Mid March, with additional 1 week functional testing by project
Fish unit rehab - Test of AWS backup with single fish unit complete. Will affect rehab alternative selection.
Transformer replacement - Install T3 underway (units 5 and 6). Sequence schedule modified from original

Approved by: Mike Colesar acting for Ron Twiner
Operation Project Manager The Dalles Dam



Red lines = avian zones

Yellow lines = current wires

Orange lines = down or missing wires

—————> Additional avian lines installed 9/2018

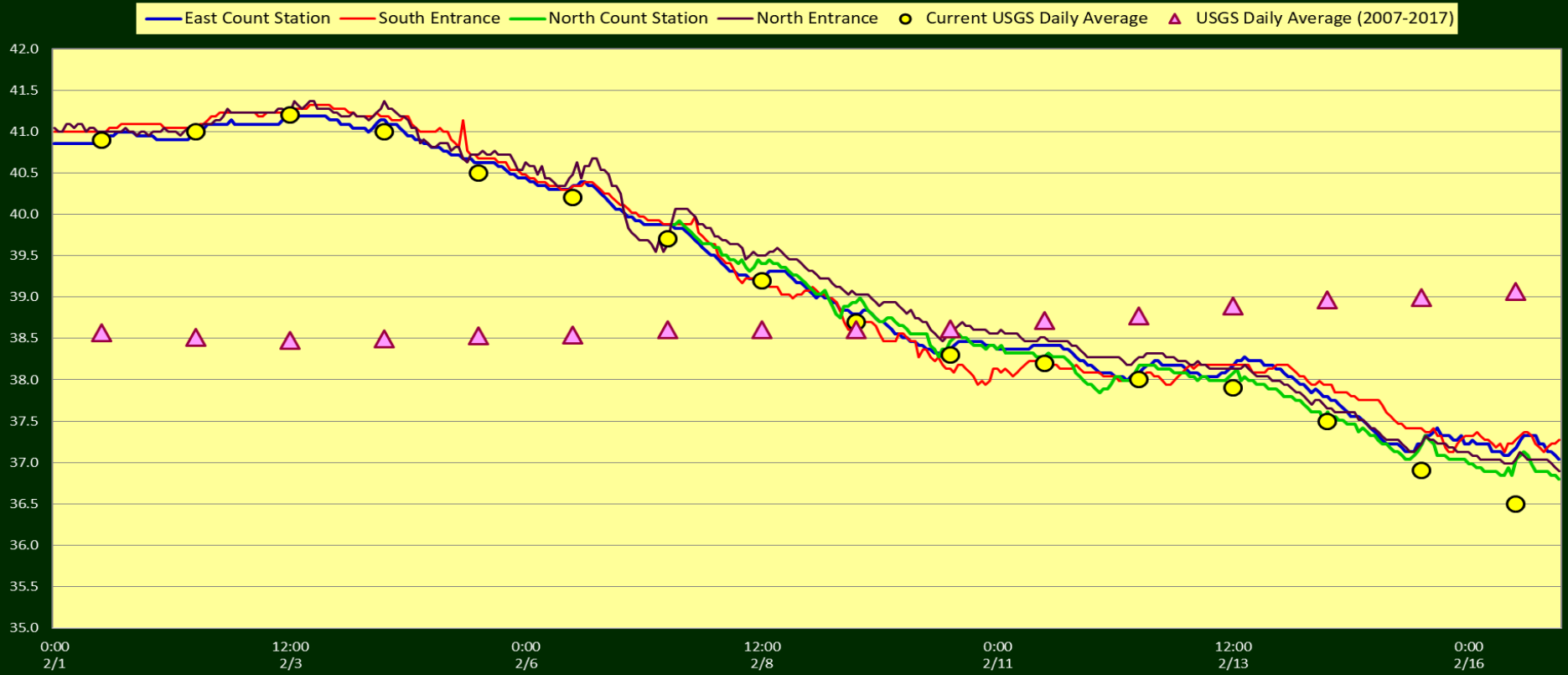
2019 Piscivorous Bird Counts

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				
	CEA	PM	FB	0	0	7	0	0	0	0	0	0	0	0	0	0	7		
			PH1	0	0	0	0	0	0	0	0	0	0	0	3	1	4	Other= 3 COME F east, GBHE NF west	
			PH2	0	0	0	0	0	0	0	0	0	0	0	0	15	15	BAEA	
			SW1	0	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	55	0	0	0	0	0	0	0	0	0	0	55	breezy, partly cloudy, 44 ° F
	JWR	AM	FB	0	1	8	0	0	0	0	0	0	0	1	4	14	BAEA		
			PH1	4	3	0	0	0	0	0	0	0	0	0	0	0	7		
			PH2	0	0	0	0	0	0	0	0	0	0	0	0	13	13	BAEA	
			SW1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	BAEA	
			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	
	JED	PM	FB	3	40	6	0	0	0	0	0	0	0	0	1	50	BAEA		
			PH1	1	0	0	0	0	0	0	0	0	0	3	1	5	3 COME, 1BAEA		
			PH2	0	0	0	0	0	0	0	0	0	0	0	1	19	20	1 GBHE, 19 BAEA	
			SW1	0	0	0	0	0	0	0	0	0	0	0	1	13	14	1BAEA F, 2BAEA NF, 11GBHE	
			SW2	0	0	2	0	0	0	0	0	0	0	0	0	0	2		
			SW3	1	0	0	55	0	0	0	0	0	0	0	0	1	57	BAEA	
	JED	PM	FB	0	100	6	0	0	0	0	0	0	0	0	1	107	BAEA		
			PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
			PH2	0	0	0	0	0	0	0	0	0	0	0	0	16	16	Partly sunny, calm, 31 F	
			SW1	0	0	0	0	0	0	0	0	0	0	0	1	10	11	1BAEA F, 10GBHE NF	
			SW2	0	0	0	0	0	0	0	0	0	0	0	1	0	1	Osprey	
			SW3	0	0	3	58	0	0	0	0	0	0	0	4	0	65	COME	
	JED	PM	FB	0	0	8	0	0	0	0	0	0	0	0	1	9	BAEA		
			PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	sunny, calm, 23 F	
			PH2	0	0	0	0	0	0	0	0	0	0	0	0	34	34	BAEA	
			SW1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	BAEA	
			SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
			SW3	0	0	0	50	0	0	0	0	0	0	0	0	0	50		
	JED	PM	FB	0	0	4	0	0	0	0	0	0	0	0	4	8	BAEA		
			PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	overcast, calm, 23 F	
			PH2	0	0	1	0	0	0	0	0	0	0	0	0	24	25	BAEA	
			SW1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	BAEA	
			SW2	0	0	0	0	0	0	0	0	0	0	0	2	0	2	COME	
			SW3	0	0	0	40	0	0	0	0	0	0	0	2	0	42	COME	
	JED	AM	FB	0	0	6	0	0	0	0	0	0	0	0	2	8	BAEA		
			PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
			PH2	0	0	2	0	0	0	0	0	0	0	0	0	34	36	BAEA	
			SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Overcast, snowing, 31 F	
			SW2	0	0	0	0	0	0	0	0	0	0	0	2	0	2	COME	
			SW3	0	0	0	54	0	0	0	0	0	0	0	0	0	54		
			SW4	0	0	0	0	0	0	0	0	0	0	0	0				

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

The Dalles Dam River/Ladder Temperatures



	Secchi:		USGS: Temperatures
2/10	5+	Sun	38.3
2/11	5+	Mon	38.2
2/12	5+	Tue	38.0
2/13	5+	Wed	37.9
2/14	5+	Thurs	37.5
2/15	5+	Fri	37.0
2/16	5+	Sat	36.9
	5+	AVG	37.7

[USGS river temp February.](#)

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

SCADA INSPECTION

= 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
2/10	1.5	9.0	out of service											
2/11	1.5	8.5												
2/12	1.4	9.0												
2/13	1.9	9.7												
2/14	1.5	9.1												
2/15	1.3	9.1												
2/16	1.3	9.0												
AVG:	1.5	9.1												

Fishways are inspected twice daily plus one SCADA inspection.