

The Dalles Dam Fishway Status Report

03/12/19

Inspection Period; Mar 3 - 9

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

The Dalles Dam	Inspections Out of Criteria	Criteria Limit	Total Number of Inspections: 14	Temperature: 35.9 °F
Comments:				
Secchi: 5.0 feet				
NORTH FISHWAY				
Exit differential	0	≤ 0.5'		
Count station differential	12	≤ 0.3'		Count station diffuser failure
Weir crest depth	0	1.0' ± 0.1'		
Entrance differential	0	1.0' - 2.0'	1.3	
Entrance weir N1	0	depth (≥ 8')	9.2	
Entrance weir N2	0	Closed		
PUD Intake differential	0	≤ 0.5'		
EAST FISHWAY - Fish units off, AWS backup system forced closed				
Exit differential	0	≤ 0.5'		
Removable weirs 154-157	0	Per forebay		
Weir 158-159 differential	0	1.0' ± 0.1'		
Count station differential	0	≤ 0.3'		
153 Weir crest depth	0	1.1' ± 0.1'		
Junction pool weir JP6	0	0.0		
East entrance differential	14	1.0' - 2.0'		
Entrance weir E1	closed	No criteria		
Entrance weir E2	14	depth (≥ 8')		
Entrance weir E3	14	depth (≥ 8')		
Collection channel velocity	closed	1.5 - 4 fps		FISHLADDER FLOW ONLY
Transportation channel velocity	closed	1.5 - 4 fps		
North channel velocity	0	1.5 - 4 fps		
South channel velocity	closed	1.5 - 4 fps		
West entrance differential	14	1.0' - 2.0'		
Entrance weir W1	14	depth (≥ 8')		
Entrance weir W2	14	depth (≥ 8')		
Entrance weir W3	closed	No criteria		
South entrance differential	14	1.0' - 2.0'		
Entrance weir S1	14	depth (≥ 8')		
Entrance weir S2	14	depth (≥ 8')		
JUVENILE PASSAGE				
Sluiceway operation	0	Units 3, 18	Unit 1 OOS. Unit 3 gates open. Unit 18 gates alternate with spillway operation until further notice.	
Turbine trashrack drawdown	0	<1.5', biwklly		
Spill volume/pattern	0	None	2k from bay 1 for north fishway attraction Mar 2, 4, and 6.	
Turbine Unit Priority	14	per FPP	Unit 1 OOS for fish unit breaker connect. Unit 3 operating with open sluiceways.	
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 legal authority issues. NOAA and NWD notified.

No Sea Lion observations this week

Ongoing FPOM discussions concerning bass/walleye release by pikeminnow dam angling crew.

Operation:

North fish ladder in full operation. Three days of spillway attraction flow from bay 1. Refer to spill tab.

East fishladder in operation with ladder flow only. Fish Unit breaker replacement extended to third week March. AWS backup system attempted to open Feb28, but closed due to valve vibration issues. Bolts need to be torqued.

Current Outages;

FU1 and FU2 OOS for annual/overhaul maintenance and breaker replace. RTS est 3/20/2019.

MU1 and MU2 (T1 transformer) OOS for FU breaker replace. RTS 3/19/19

MU5 forced OOS blade seals and T3 transformer replace. RTS 7/12/2019.

MU6 OOS annual and T3 transformer replace. RTS 7/12/2019.

MU13 OOS OOS annual. RTS 3/29/2019

MU14 OOS overhaul. RTS 3/29/2019

MU16 OOS exciter replace. RTS 3/28/2019.

MU19 and MU20 forced OOS transformer acetylene production. RTS 10/24/2019

Maintenance

North ladder flow diffuser gearbox failed. Maintenance in process of repair. Temporary improvisation in place for manual operation.

Collection channel dewatering pumps 5 and 6 removed for rehab. Housing cracks repaired. Reinstall prior to next winter.

Fishway automation replacement assembly starting this summer. Install winter of 2019/20

Diffuser valve status evaluation ongoing. Planning for rehab process.

Maintenance supporting AWS backup repair. In process of tightening loose bolts.

Hiring goats to remove vegetation on top side of south channel and north ladder 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 count monitoring at east and north count station since Mar1; Six steelhead passed east ladder while AWS closed. No fish passed north ladder during this time.

AWS construction - Vibration issues of 10' valve on start up Feb 28 forced emergency closure. Bulkheads installed. Team evaluating problem for resolution.

Numerous bolts require re torque. Follow on construction items to be addressed through summer.

PSMFC weekly sampling for North Wasco County PUD resumes Apr1. New sample collection tank installation postponed to winter 2019/20.

PITAGS North and east fishladder data collection at count stations continues. Inquiring 15 mile creek steelhead overshoot information through ODFW.

Fish Counters - Likely start with video 4/1/19 until contractor issues resolved. Fish Field Unit to provide video support.

Pikeminnow dam angling - Caught 1785 YTD. Fishing resumes next spring. Debate over release of invasive bass and walleye continues in FPOM.

ODFW report from last summer walleye gut samples John Day; "*Probability of salmon in the diet was higher for walleye than northern pikeminnow (.214 vs .133)*"

ODFW monthly fishway inspections resume April. Awaiting 2018 annual report.

Lamprey minor mods - Site visit for potential LPS planning.

Univ of Idaho lamprey radiotelemetry - Second season of lamprey passage night flow reduction test to resume in May.

Tribal lamprey trapping - Project to construct single lift hoist mechanism prior to next trapping season.

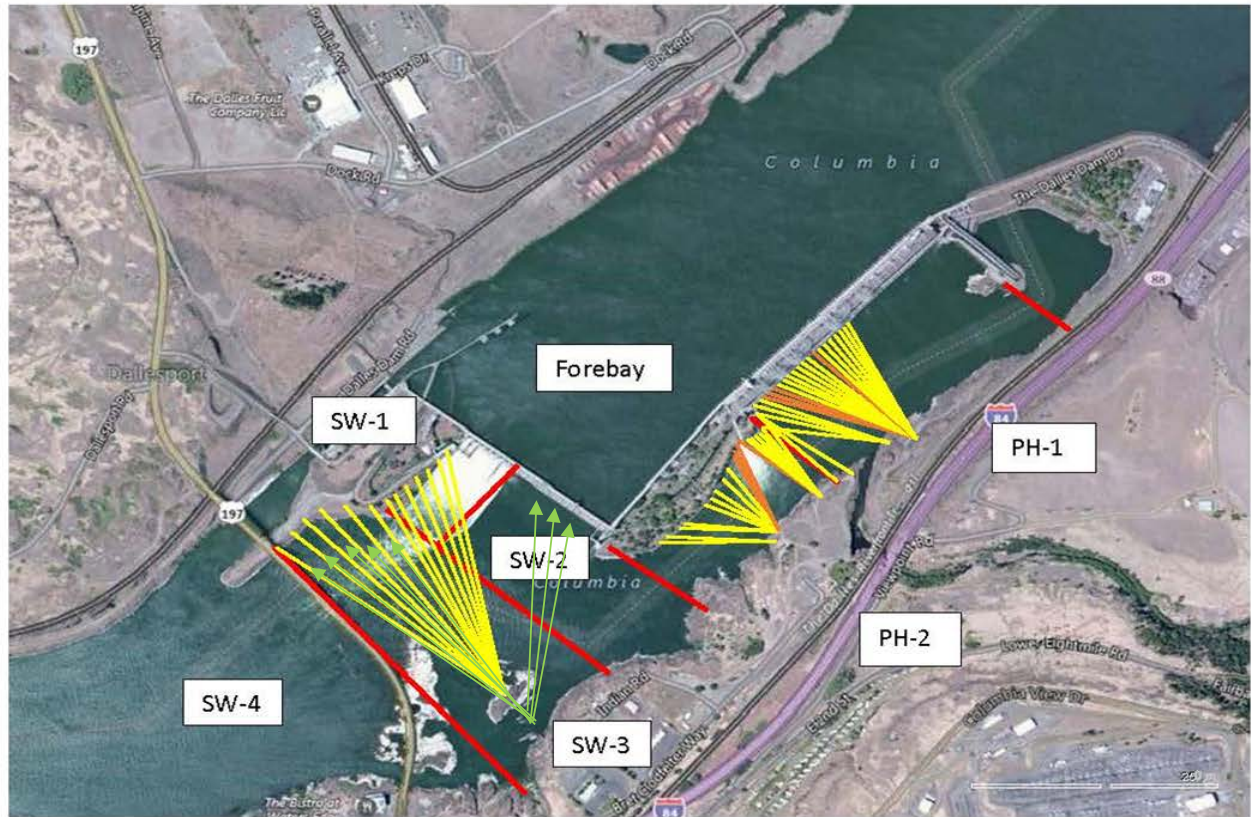
Fish unit breaker replace - Schedule delay completion slip to mid March, with additional 1 week functional testing by project.

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

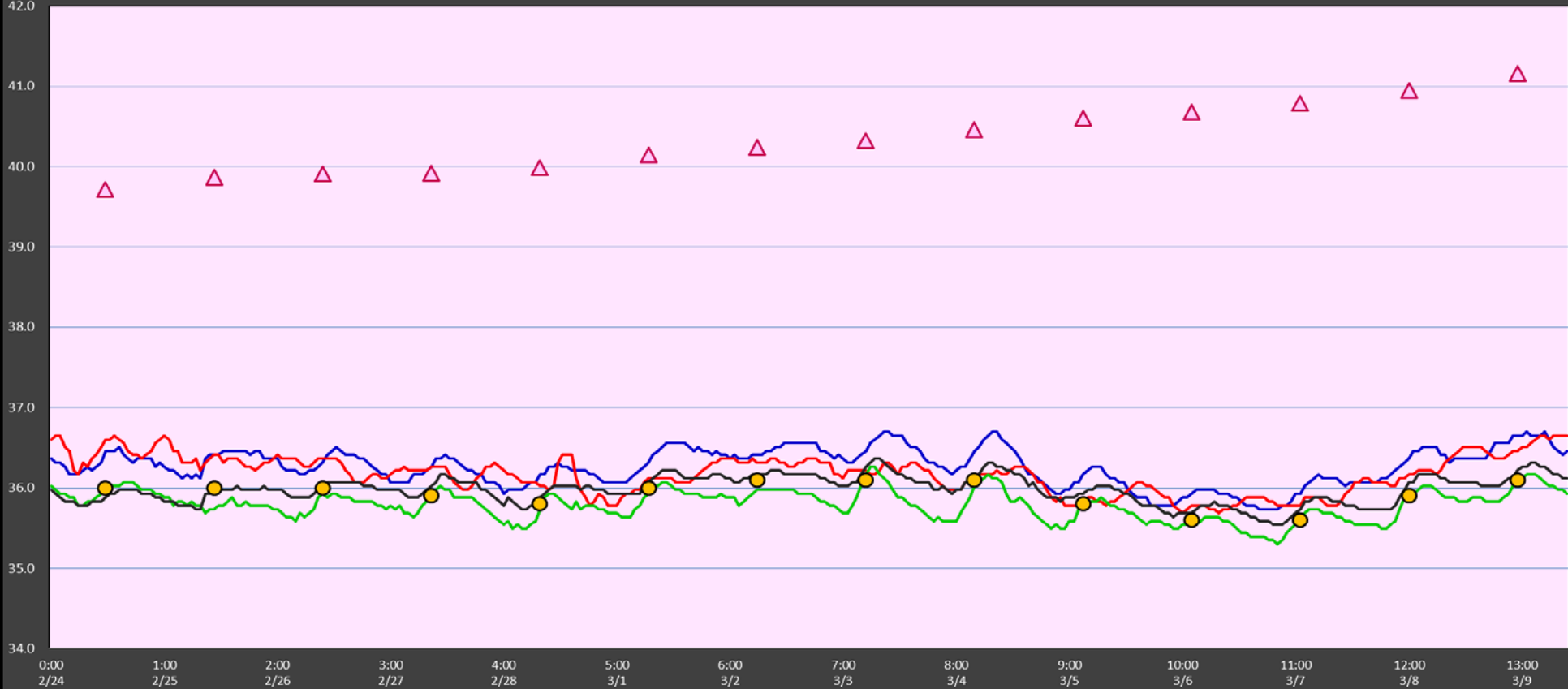
F=foraging, NF=non-foraging

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		
3/3/19	JED	AM	FB	2	0	0	0	0	0	0	0	0	0	0	0	2	
			PH1	0	0	0	0	0	0	0	0	0	0	0	1	1	BAEA
			PH2	0	0	0	0	0	0	0	0	0	0	0	6	6	BAEA
			SW1	0	0	0	0	0	0	6	0	0	0	0	0	6	
			SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	Sun, east wind 5, 34F
			SW3	0	0	0	4	0	0	0	0	0	0	0	0	4	
			SW4	0	0	0	0	0	0	0	0	0	0	0	1	1	BAEA
3/4/19	JED	PM	FB	1	0	0	1	0	0	0	0	0	0	0	2		
			PH1	0	0	0	0	0	0	0	0	0	0	1	1	BAEA	
			PH2	0	0	0	0	0	0	0	0	0	0	4	4	BAEA	
			SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	
			SW2	0	0	0	0	0	0	0	0	0	1	0	1	1 BAEA Overcast, calm 24F	
			SW3	0	0	0	3	0	0	0	0	0	2	0	5	5	COME
			SW4	0	0	0	0	0	0	0	0	0	1	0	1	1	BAEA
3/5/19	JED	AM	FB	0	0	1	0	0	0	0	0	0	0	2	3	BAEA	
			PH1	0	0	0	0	0	0	0	0	0	0	1	1	BAEA	
			PH2	0	0	0	0	0	0	0	0	0	0	3	3	BAEA	
			SW1	0	0	0	0	0	0	0	0	0	3	0	3	COME	
			SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	overcast, calm, 32F
			SW3	0	0	0	2	0	0	0	0	0	0	3	5	5	3 GBHE
			SW4	0	0	0	0	0	0	0	0	0	0	1	1	1	BAEA
3/6/19	CEA	AM	FB	0	0	0	0	0	0	0	0	0	0	0	0	0	
			PH1	0	1	0	0	0	0	0	0	0	0	0	1	1	
			PH2	0	0	0	0	0	0	0	0	0	0	2	2	2	BAEA
			SW1	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	
			SW3	0	0	0	0	0	0	0	0	0	0	1	1	1	GBHE
			SW4	0	0	0	0	0	0	0	0	0	0	0	0	0	
3/7/19	CEA	PM	FB	0	0	1	0	0	0	0	0	0	1	2	2	BAEA	
			PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	
			PH2	0	0	0	0	0	0	0	0	0	0	4	4	4	BAEA
			SW1	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	
			SW3	0	0	0	7	0	0	0	0	0	0	0	7	7	
			SW4	0	5	0	0	0	0	0	0	0	0	0	5	5	
3/8/19	CEA	AM	FB	0	0	0	0	0	0	0	0	0	0	0	0	0	
			PH1	0	0	0	0	0	0	0	0	0	0	9	9	9	8 COME, 1 BAEA
			PH2	0	0	0	0	0	0	0	0	0	0	3	3	3	BAEA
			SW1	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	
			SW3	0	0	0	10	0	0	0	0	0	0	0	10	10	
			SW4	0	8	0	0	0	0	0	0	0	0	0	8	8	
3/9/19	JWR	AM	FB	0	0	0	0	0	0	0	0	0	0	0	0	0	
			PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	
			PH2	0	0	0	0	0	0	0	0	0	0	1	1	1	BAEA
			SW1	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	
			SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	
			SW4	0	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 Adult Fish Ladder(s) River Temperature

— East Count Station — South Entrance — North Count Station — North Entrance ● Current USGS Daily Average ▲ USGS Daily Average (2007-2017)



	Secchi:		USGS: Temperatures
3/3	5.0	Sun	36.1
3/4	5.0	Mon	36.1
3/5	5.0	Tue	35.8
3/6	5.0	Wed	35.6
3/7	5.0	Thurs	35.6
3/8	5.0	Fri	35.9
3/9	5.0	Sat	36.1
	5.0	AVG	35.9

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

SCADA INSPECTION
= Out of criteria

Date:	North Ladder	
	North Entrance	
	Differential	N1 Depth
3/3	1.1	9.3
3/4	1.1	9.4
	1.2	9.4
3/5	1.2	9.3
	1.4	9.0
3/6	1.4	9.1
	1.4	9.2
3/7	1.5	9.1
	1.5	9.0
3/8	1.5	9.1
	1.4	9.2
3/9	1.4	9.1
	1.4	9.0
AVG:	1.3	9.2

OOS



North fishladder flow control diffuser failure. Maintenance improvised manual control system.