

The Dalles Dam Fishway Status Report

05/12/19

Inspection Period: May 5 - May 11, 2019

THE DALLES DAM



US Army Corps
of Engineers
Portland District

The Dalles Project-Fisheries
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The Dalles Dam	Inspections OOC	Criteria Limit	Total Number of Inspections: Comments: Fish units Out of service 5/4 night.	Temperature: Secchi:
<p style="text-align: right;">21 54.4 °F</p> <p style="text-align: right;">2.9 feet</p>				
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'	1.4	
Entrance weir N1	0	depth (≥ 8')	10.0	
Entrance weir N2	0	Closed		
PUD Intake differential	0	≤ 0.5'		
EAST FISHWAY				
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'	low	
Junction pool weir JP6	0	0.0		
East entrance differential	0	1.0' - 2.0'		
Entrance weir E1	0	No criteria		
Entrance weir E2	0	depth (≥ 8')		
Entrance weir E3	0	depth (≥ 8')		
Collection channel velocity	0	1.5 - 4 fps	2.22fps on 4/25	
Transportation channel velocity	0	1.5 - 4 fps	2.45fps on 4/25	
North channel velocity	0	1.5 - 4 fps	1.50 fps on 4/27 high tailwater.	
South channel velocity	0	1.5 - 4 fps	2.39fps on 4/25	
West entrance differential	0	1.0' - 2.0'		
Entrance weir W1	0	depth (≥ 8')		
Entrance weir W2	0	depth (≥ 8')		
Entrance weir W3	closed	No criteria		
South entrance differential	0	1.0' - 2.0'		
Entrance weir S1	0	depth (≥ 8')		
Entrance weir S2	0	depth (≥ 8')		
JUVENILE PASSAGE				
Sluiceway operation	0	Units 1, 8, 18;		
Turbine trashrack drawdown	0	<1.5', biweekly	Gatewells inspection 4/25/19.	
Spill volume/pattern	0	None	Gates 1 through 8 open to flex spill pattern.	
Turbine Unit Priority	21	per FPP	MU 5 and 6 OOS for maintenance	
Turbine 1% Efficiency	0	per FPP		

OTHER ISSUES:

Operation:

East & North fish ladders in full operation.

Sluiceway open with 6 sluiceways per Fish Passage Plan.

Spillway open with spring flex spill for juvenile passage.

Loose barge tow drifted into spillbay 1. Initial damage assess shows no obvious issues. Further evaluation underway. Appears no contact with gate or JSAT pipes.

Current Outages;

MU3 OOS Annual. RTS 5/23/19

MU4 OOS Overhaul. RTS 5/23/19

MU5 FOOS blades/seals and T3 GSU transformer replacement and Overhaul. RTS 8/29/19

MU6 OOS T3 GSU transformer replacement. RTS 8/29/19

T10(MU19 & 20) FOOS through 10/28/21 due to acetylene levels

Cycling through all units for SCC upgrades. OOS 4-6hours per unit.

Maintenance:

East count station window/crowder brush failed, repair underway.

Calibrations: East ladder entrance tailwater accuracy issues. Maintaining criteria. Troubleshooting underway.

Collection channel dewatering pumps 5 and 6 rehab in progress.

Fishway automation assembly starts in May. Install winter of 2019/20

Engineering evaluating east fishway diffuser valve status to help determine rehab plan.

Contract for goats to remove vegetation on top side of north ladder and south channel May 17.

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.

Predators;

Increasing gull numbers. USDA hazing from boat and shore. Testing laser deterrence for gulls loafing on rocks.

Pikeminnow dam angling removed 29 pikeminnow last week from tailrace deck.

Cormorant nesting on forebay towers increasing from previous years. Evaluating if results in increased near dam foraging.

Security guard reported sighting of sea lion near south fishway entrance. Confirmed sighting in spillway near bridge. Hazing not approved.

Research/Construction/Contractors:

Fish counting contractors (Four Peaks) started May 6.

AWS backup - Compiling list for follow on contract items and spare parts.

Transformer replacement - Ongoing. Schedule adjusted for fisheries requirements.

PSMFC weekly sampling for North Wasco County PUD in progress since Apr1. Refer to PCMFC weekly sample report.

PITAGS north and east fishladder data collection at count stations continues.

Fish Counters - Contractor 4 Peaks scheduled to begin 5/6. Providing support as needed. All previous video reviewed by Fish Field Unit and project fisheries staff.

For fish count data and ladder passage splits, refer to; http://www.fpc.org/adults/adult_queries/Q_adultcoequeries_adultrunsum_queryv2.php

Pikeminnow dam angling - Resumes this week with WDFW crew. **Bass/Walleye release continues as ongoing FPOM discussion.**

ODFW monthly fishway inspections resumed.

Lamprey minor mods - Planning for potential LPS in junction pool.

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

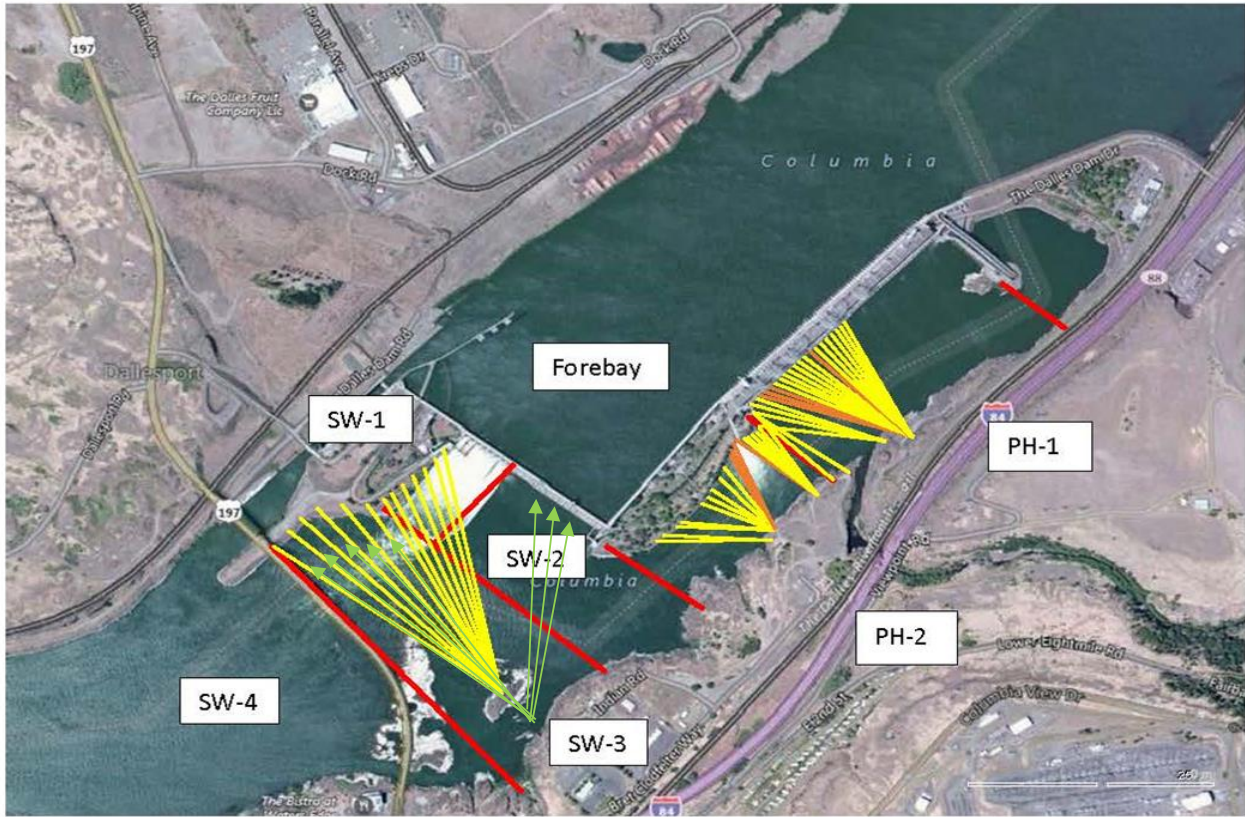
Tribal lamprey trapping - Materials and plans on hand for new hoist system. Install awaiting FPOM approval.

Fish unit breaker replace - Fish units returned to service. Substantial cleanup likely next winter.

Fish unit rehab - Design on hold until further notice.

Approved by: Bryan Hert acting for 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		DCCO		Caspian tern		Grebe		White Pelican		Other		Total birds in zone	Notes		
				F	NF	F	NF	F	NF	F	NF	F	NF	F	NF				
5/5/19	JED	PM	FB	10	0	0	38	0	0	0	0	0	0	0	2	0	50	osprey	
			PH1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	One DCCO and 2gulls hazed with light in am.
			PH2	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6	
			SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Sunny, wind NE 13, 78F
			SW2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
			SW3	10	0	0	0	0	0	0	0	0	0	0	0	0	0	10	
5/6/19	BC	AM	FB	0	0	0	19	0	0	0	0	0	0	0	0	0	19		
			PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	sun, no wind,
			PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
			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	5	0	0	0	0	0	0	0	0	0	0	0	0	5	
5/7/19	JWR	PM	FB	0	0	0	27	0	0	0	0	0	0	0	0	0	27		
			PH1	0	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	0	0	0	
			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	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
5/8/19	JWR	AM	FB	0	0	0	33	0	0	0	0	0	0	0	0	0	33		
			PH1	0	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	0	0	0	
			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	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
5/9/19	CEA	PM	FB	2	0	2	28	0	0	0	0	0	0	0	0	0	32		
			PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
			PH2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	
			SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
			SW2	0	0	3	0	0	0	0	0	0	0	0	0	1	0	4	CSL
			SW3	3	0	1	0	0	0	0	0	0	0	0	0	0	0	4	
5/10/19	JWR	AM	FB	0	0	0	26	0	0	0	0	0	0	0	0	0	26		
			PH1	4	0	0	0	0	0	0	0	0	0	0	0	0	4		
			PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
			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	1	16	1	0	0	0	0	0	0	0	0	0	0	0	18	
5/11/19	JWR	PM	FB	0	0	0	38	0	0	0	0	0	0	0	0	0	38		
			PH1	0	0	0	1	0	0	0	0	0	0	0	0	0	1		
			PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
			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	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6	
SW4	22	0	0	0	0	0	0	0	0	0	0	0	0	0	22				

Key: DCCO=Double crested cormorant; BAEA = Bald Eagle; GBHE = Great Blue Heron; COME = Common Merganser

The Dalles Dam Adult Fish Ladder(s) River Temperatures

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



Spill KCFS



		USGS:
Secchi:		Temperatures
5/5	2.5	Sun 53.5
5/6	3.0	Mon 53.7
5/7	2.5	Tue 54.0
5/8	3.0	Wed 54.4
5/9	3.0	Thurs 54.7
5/10	3.0	Fri 55.2
5/11	3.0	Sat 55.4
	2.9	AVG 54.4

May

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

SCADA INSPECTION
= Out of criteria

Date:	North Ladder Entrance		East Ladder											
			East Entrance- open					West Entrance			South Entrance			
	Differential	N1 Depth	Differential	E1 Depth	E2 Depth	E3 Depth	JP 6	Differential	W1	W2	W3	Differential	S1	S2
5/5			1.9		13.5	13.5	1.0	1.4	8.5	8.5		1.3	8.6	8.6
	1.4	10.1	1.9		13.3	13.3	12.9	1.4	8.5	8.5		1.3	8.7	8.5
	1.4	9.9	1.9		13.2	13.2	12.4	1.3	8.5	8.5		1.4	8.5	8.5
5/6			1.8		13.4	13.4	12.3	1.3	8.4	8.4		1.3	8.6	8.6
	1.4	10.1	1.7		13.4	13.3	12.7	1.3	8.5	8.6		1.4	8.6	8.6
	1.4	9.9	1.7		13.3	13.3	12.2	1.2	8.4	8.4		1.3	8.4	8.4
5/7			1.8		13.3	13.3	1.4	1.4	8.5	8.5		1.4	8.5	8.5
	1.4	10.0	1.9		13.3	13.3	13.5	1.4	8.6	8.6		1.3	8.6	8.6
	1.4	9.9	1.9		13.3	13.3	13.3	1.5	8.4	8.4		1.3	8.6	8.6
5/8			1.9		13.4	13.4	12.5	1.3	8.5	8.5		1.3	8.6	8.6
	1.4	10.0	1.8		13.3	13.3	13.1	1.3	8.6	8.6		1.4	8.5	8.5
	1.4	9.9	1.8		13.3	13.2	13.2	1.3	8.6	8.6		1.4	8.4	8.4
5/9			1.9		13.3	13.3	13	1.4	8.5	8.5		1.3	8.7	8.7
	1.4	10.0	1.6		13.8	13.8	13.3	1.3	8.6	8.6		1.3	8.5	8.5
	1.4	10.0	1.7		13.8	13.8	13.3	1.4	8.3	8.3		1.4	8.4	8.4
5/10			1.8		13.8	13.8	13.7	1.4	8.5	8.5		1.5	8.3	8.3
	1.4	10.0	1.7		13.9	13.9	13.6	1.4	8.6	8.6		1.3	8.5	8.5
	1.4	9.9	1.9		13.8	13.8	13.3	1.4	8.6	8.6		1.3	8.6	8.6
5/11			1.9		13.8	13.8	14.6	1.3	8.4	8.4		1.3	8.5	8.5
	1.4	9.9	1.9		13.8	13.8	13.8	1.4	8.4	8.4		1.4	8.5	8.5
	1.4	9.9	2.0		13.9	13.8	14.6	1.5	8.4	8.4		1.3	8.5	8.6
AVG:	1.4	10.0	1.8		13.5	13.5	12.1	1.4	8.5	8.5		1.3	8.5	8.5

Fishways are inspected twice daily plus one SCADA inspection.



Loose barge tow against spillway May 9 AM. No spill adjustments were needed for removal.



Appeared to be no contact with spill gate. Damage assessment continues.