

The Dalles Dam Fishway Status Report

05/05/19

Inspection Period: April 28 - May 4, 2019

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 OOC	Criteria Limit	Total Number of Inspections: Comments: Fish units Out of service 5/4 night.	Temperature: Secchi:
NORTH FISHWAY				
Exit differential	0	≤ 0.5'		53.2 °F
Count station differential	0	≤ 0.3'		2.2 feet
Weir crest depth	0	1.0' ± 0.1'		
Entrance differential	0	1.0' - 2.0'	1.9	
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:

Predators;

Moderate Gull numbers. USDA hazing from boat and shore. Testing laser deterrence for gulls loafing on rocks showing some effectiveness during low light. Pikeminnow dam angling starting with no catch rates reported yet.

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Operation:

East & North fish ladders in full operation.

Sluiceway open with 6 sluiceways per Fish Passage Plan.

Spillway open for juvenile passage.

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

Maintenance:

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

Calibrations: East ladder entrance tailwater accuracy is problematic, though in criteria. Troubleshooting underway.

Collection channel dewatering pumps 5 and 6 rehab ongoing. Pump 1 installed.

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

Diffuser valve status evaluation by engineering underway to help determine rehab plan.

Contract for goats to remove vegetation on top side of north ladder and south channel May 16.

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:

FFU and project fisheries staff video monitoring count stations until contractor starts 5/6.

AWS backup - Valve room electrical repair needed. Compiling list for follow on contract items and spare parts.

Transformer replacement - Install T3 underway

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

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.

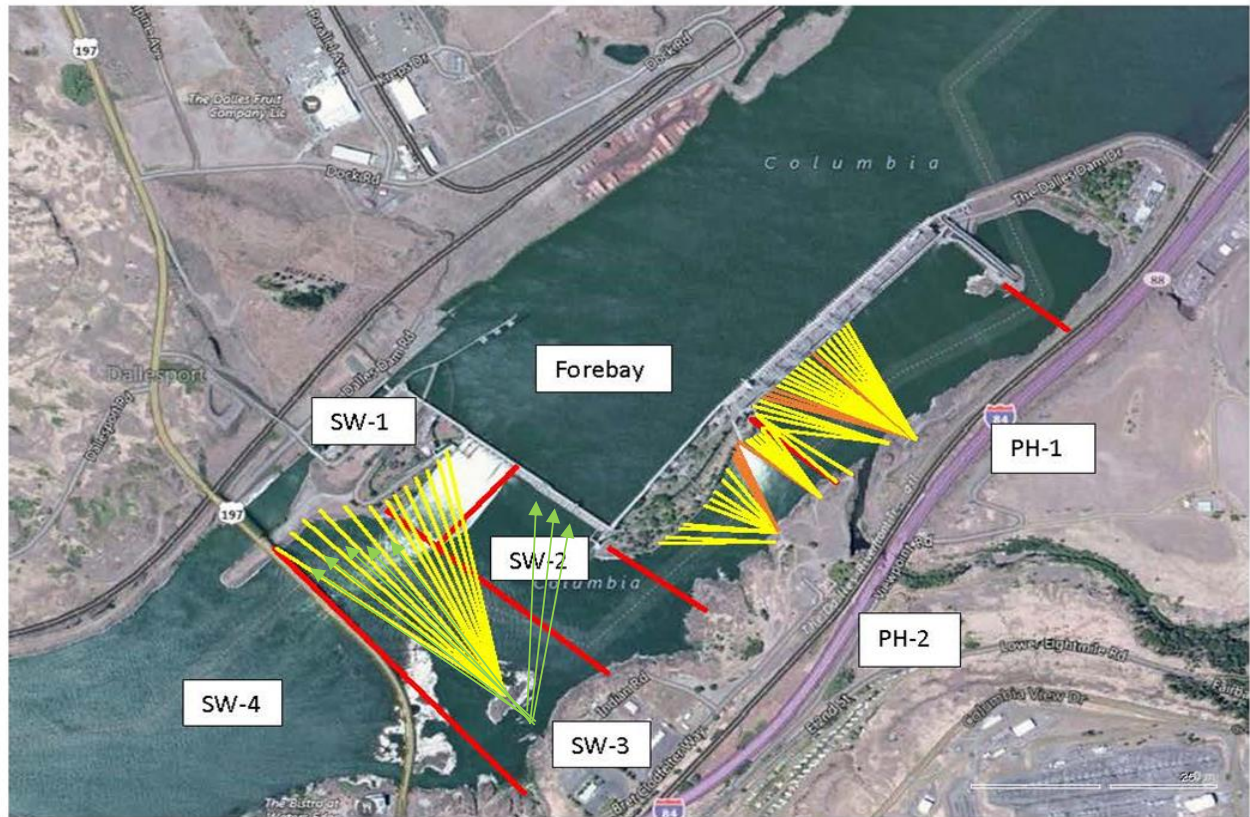
Univ of Idaho lamprey radiotelemetry - Second season of lamprey passage night flow reduction test to resume in May.

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: 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

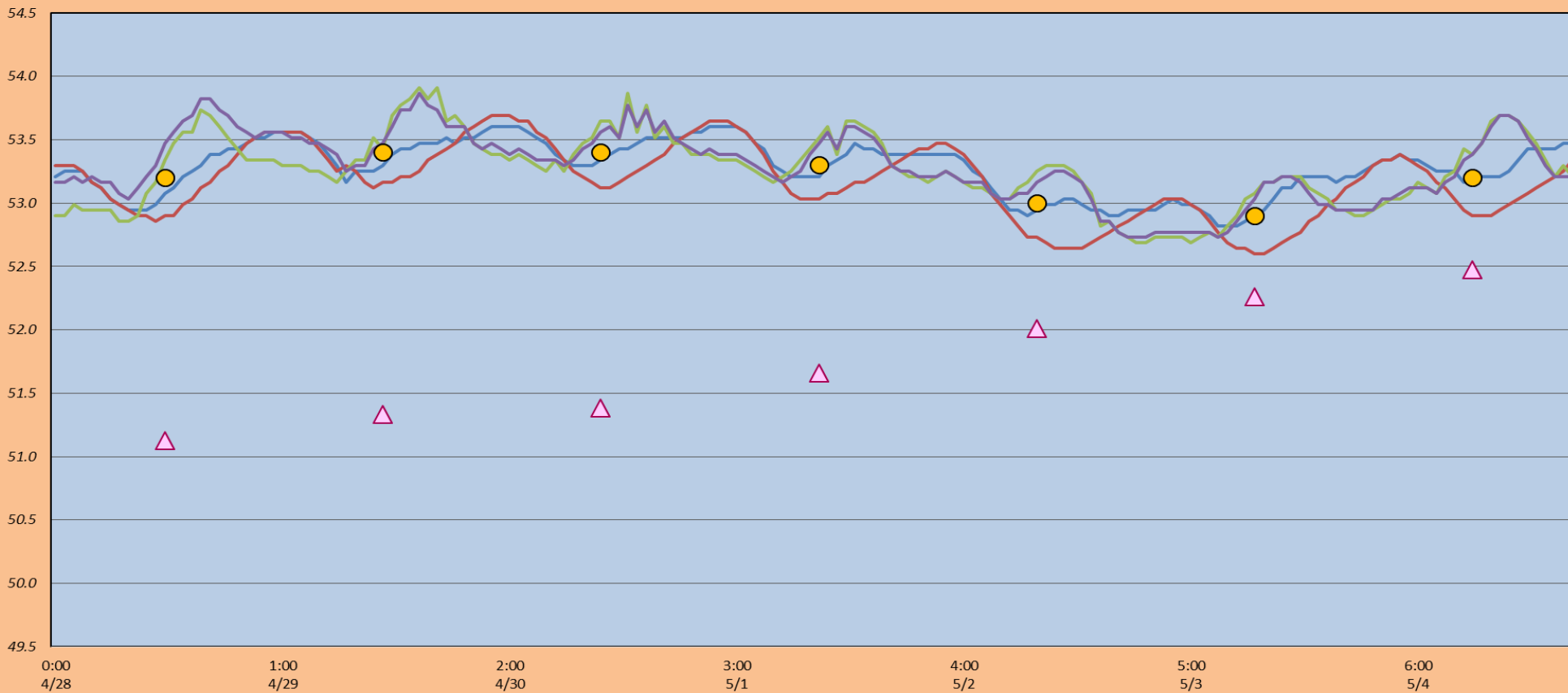
F=foraging, NF=non-foraging

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			
4/28/19	CEA	AM	FB	0	0	0	38	0	0	0	0	0	0	0	1	39	Osprey	
			PH1	6	0	0	0	0	0	0	0	0	0	0	1	7	GBHE; all ph1east	
			PH2	6	0	0	0	0	0	0	0	0	0	0	0	0	6	
			SW1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	Osprey
			SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
			SW3	5	0	0	0	0	0	0	0	0	0	0	0	0	5	sunny, calm, 50F
4/29/19	JWR	PM	FB	0	0	0	25	0	0	0	0	0	0	0	0	25		
			PH1	0	0	0	2	0	0	0	0	0	0	0	0	2		
			PH2	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	
			SW2	0	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	0	
4/30/19	JWR	AM	FB	0	0	3	22	0	0	0	0	0	0	0	0	25		
			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	0	0	
			SW1	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	
			SW3	1	0	0	0	0	0	0	0	0	0	0	0	0	1	
5/1/19	JWR	PM	FB	0	0	0	35	0	0	0	0	0	0	0	0	35		
			PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
			PH2	1	0	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	
			SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
			SW3	0	6	0	0	0	0	0	0	0	0	0	0	0	6	
5/2/19	JWR	AM	FB	0	0	1	26	0	0	0	0	0	0	0	0	27		
			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	0	0	
			SW1	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	
			SW3	1	0	0	0	0	0	0	0	0	0	0	0	0	1	
5/3/19	JWR	PM	FB	0	0	0	22	0	0	0	0	0	0	0	0	22		
			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	0	0	
			SW1	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	
			SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5/4/19	JED	AM	FB	0	4	0	60	0	0	0	0	0	0	0	0	64		
			PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	sunny, calm, 70F
			PH2	4	0	0	0	0	0	0	0	0	0	0	0	4		
			SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
			SW2	0	1	0	0	0	0	0	0	0	0	0	0	0	1	
			SW3	1	0	0	0	0	0	0	0	0	0	0	0	0	1	
SW4	2	0	0	0	0	0	0	0	0	0	0	0	0	2	15 NF gulls and 1 AMWP in sw5			

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
4/28	2.0	Sun 53.2
4/29	2.0	Mon 53.4
4/30	2.0	Tue 53.4
5/1	2.0	Wed 53.3
5/2	2.5	Thurs 53.0
5/3	2.5	Fri 52.9
5/4	2.5	Sat 53.2
	2.2	AVG 53.2

April
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
4/28			1.8		13.4	13.4	14.5	1.3	8.2	8.2		1.1	8.4	8.3
	1.4	10.0	1.8		13.3	13.3	14.8	1.2	8.2	8.2		1.3	8.1	8.2
	1.4	9.9	1.6		13.4	13.4	14.5	1.3	8.0	8.0		1.3	8.0	8.0
4/29			1.6		13.4	13.4	14.1	1.1	8.1	8.1		1.3	8.0	8.0
	1.4	10.0	1.7		13.3	13.3	14.0	1.1	8.0	8.0		1.2	8.2	8.2
	1.4	10.0	1.7		13.2	13.2	14.1	1.2	8.0	8.0		1.2	8.1	8.1
4/30			1.5		13.3	13.3	13.1	1	8.1	8.1		1.3	8.2	8.1
	8.1	10.1	1.6		13.3	13.3	13.5	1.2	8.1	8.1		1.3	8.2	8.2
	1.5	9.9	1.6		13.4	13.4	13.6	1.1	8.1	8.1		1.4	8.1	8.1
5/1			1.9		13.3	13.3	14.1	1.3	8	8		1.3	8.2	8.2
	1.4	10.0	1.8		13.2	13.2	13.9	1.2	8.1	8.1		1.3	8.1	8.1
	1.4	9.9	1.8		13.1	13.1	13.5	1.2	8.1	8.1		1.2	8.2	8.2
5/2			1.5		13.3	13.3	13	1.1	8.2	8.2		1.2	8.2	8.2
	1.4	9.9	1.5		13.3	13.3	12.8	1.1	8	8		1.3	8	8
	1.3	10.0	1.8		13.5	13.5	12.7	1.2	8.1	8.1		1.2	8.1	8.1
5/3			1.8		13.5	13.5	13.1	1.1	8.3	8.3		1.2	8.2	8.2
	1.5	9.9	1.7		13.3	13.3	13.8	1.3	8.1	8.1		1.3	8.1	8.1
	1.4	10.0	1.8		13.3	13.3	13.6	1.1	8.1	8.1		1.2	8.1	8.1
5/4			1.7		13.3	13.3	13.5	1.1	8.1	8.1		1.3	8.1	8.2
	1.4	10.1	1.8		13.2	13.2	13.5	1.1	8.5	8.5		1.2	8.4	8.4
	1.3	10.1	1.8		13.4	13.4	13.5	1.1	8.5	8.5		1.1	8.5	8.5
AVG:	1.9	10.0	1.7		13.3	13.3	0.0	1.2	8.1	8.1		1.2	8.2	8.2

Fishways are inspected twice daily plus one SCADA inspection.



Increased cormorant nesting on forebay powerline towers. Determining if this results in near dam predation increase.