

The Dalles Dam Fishway Status Report

05/26/19

Inspection Period: May 19 - May 25, 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: Repair to Weir 158 motor/brake.	Temperature: Secchi:
NORTH FISHWAY				
Exit differential	0	≤ 0.5'		56.4 °F
Count station differential	0	≤ 0.3'		3.5 feet
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	5	1.0' ± 0.1'	Motor and brake repaired.	
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	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	2.01fps on 5/26 range; 1.54fps at MU13, to 2.46fps at MU4	
Transportation channel velocity	0	1.5 - 4 fps	2.12 fps on 5/26.	
North channel velocity	0	1.5 - 4 fps	1.73 fps on 5/27.	
South channel velocity	0	1.5 - 4 fps	2.52 fps on 5/26.	
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 5/16/19.	
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.

Current Outages;

MU5 FOOS bladeseals 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 exit weir 158 limit, motor and brake issues affected criteria operation. All issues resolved.
East count station window/crowder brush failed again. Waiting on parts.
Calibration check 5/21: East entrance tailwater off by 0.4'. Some entrance weirs off but not affecting criteria. Maintenance notified.
Collection channel dewatering pumps 5 and 6 rehab in progress.
Fishway automation parts purchase continues. More labor focus shifted to FY20.
Engineering evaluation of east fishway diffuser valve status planned.
Goats completed vegetation from south channel and north fishladder. All animals returned home safely. (refer to pics tab)
Fish related /non-fish funded items; Spillway assessment underway. Spillway crane replace and spillgate 9 repair included.

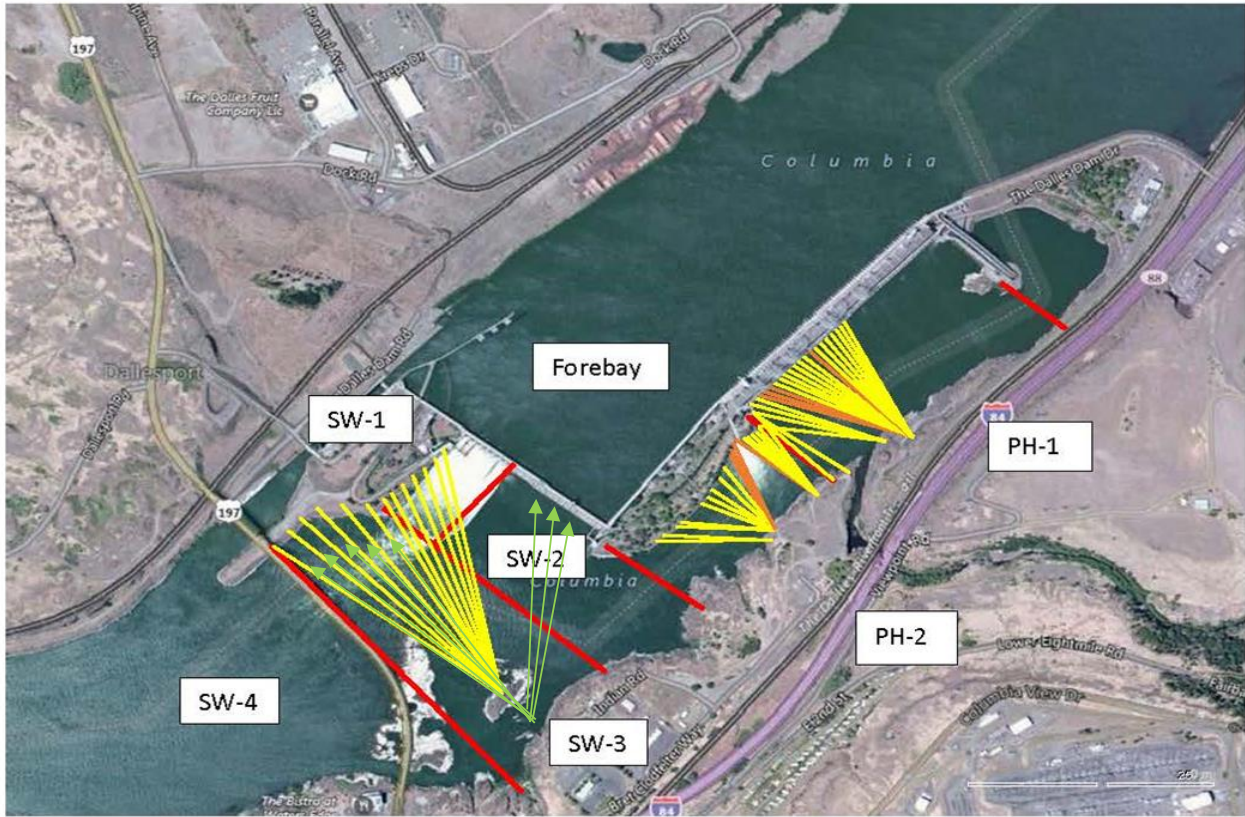
Predators;

USDA hazing from boat and shore. Evaluation of laser deterrence for gulls loafing on rocks underway. Preliminary results look promising under some conditions.
Pikeminnow dam angling removed 58 pikeminnow last week from tailrace deck.
Cormorant nesting on forebay towers increasing from previous years. Evaluating if results in increased near dam foraging.
No sea lion sightings reported this week.

Research/Construction/Contractors:

Fish counting contractors (Four Peaks) on site and counting.
For fish count data and ladder passage splits, refer to; http://www.fpc.org/adults/adult_queries/Q_adultcoqueries_adultrunsum_queryv2.php
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 continues. Refer to PSMFC weekly sample report.
PITAGS north and east fishladder data collection at count stations continues.
Pikeminnow dam angling - 23 Pikeminnow for the week and 84 YTD. **Bass/Walleye release continues, unlike dam angling conducted at PUD projects.**
ODFW monthly fishway inspections ongoing.
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 next week.
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

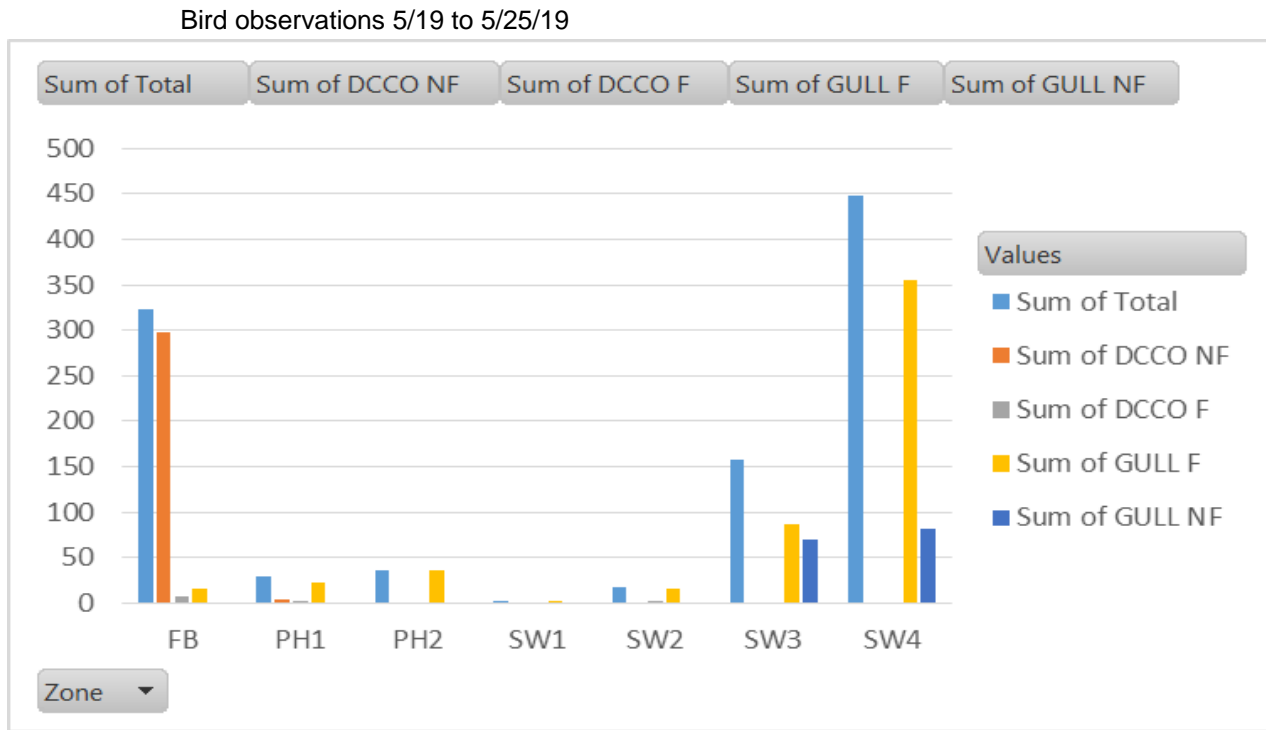
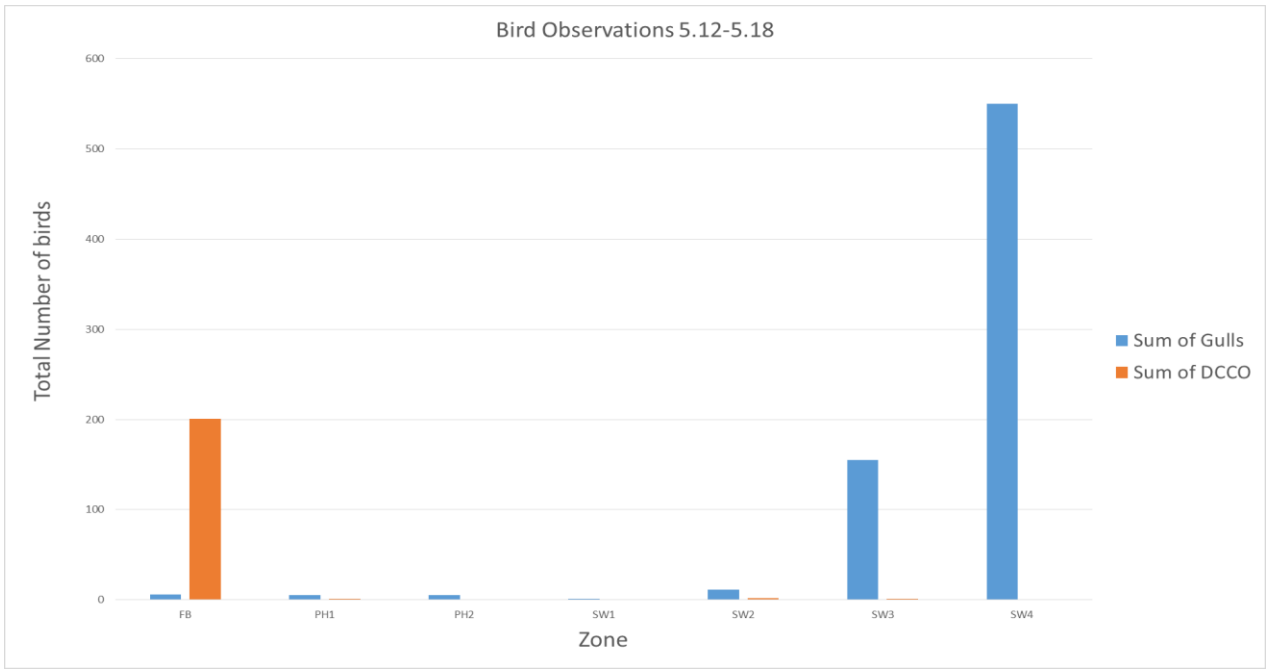


Red lines = avian zones

Yellow lines = current wires

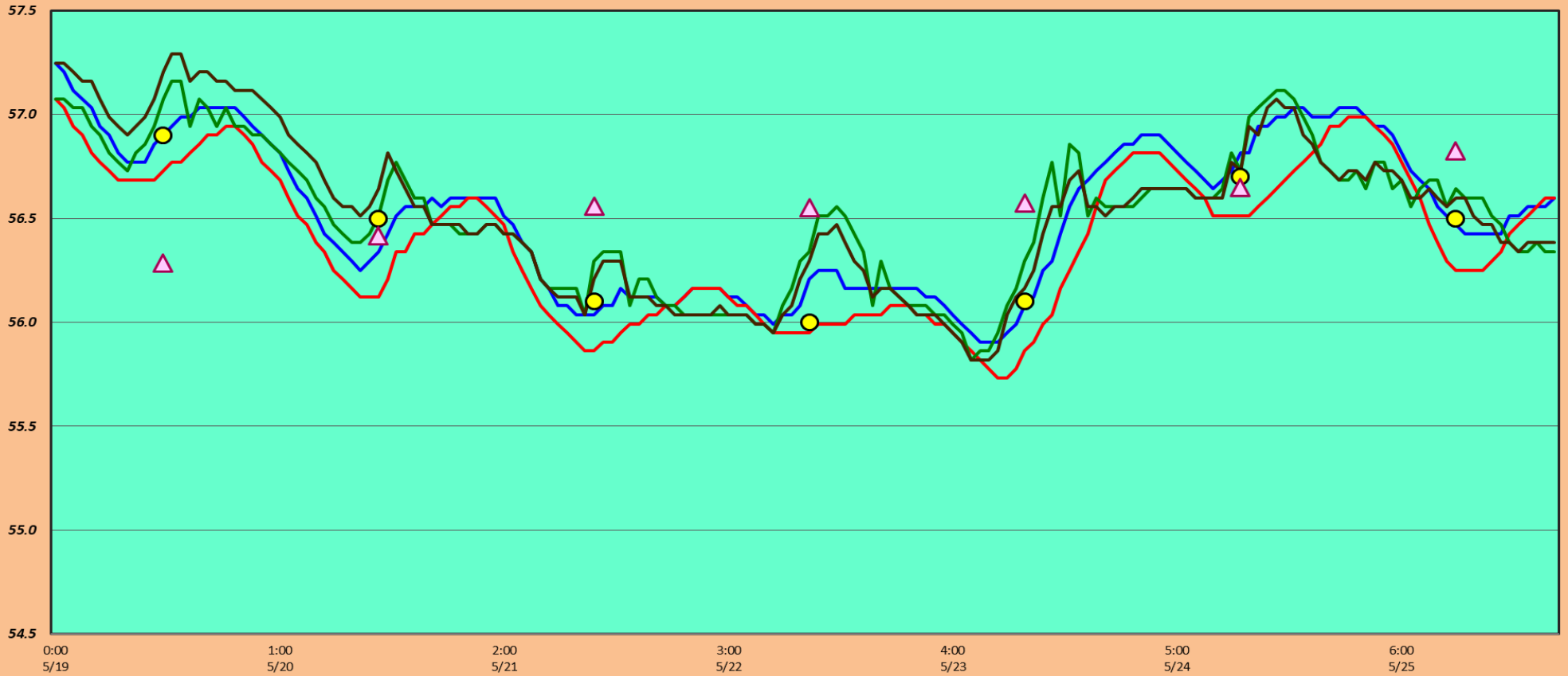
Orange lines = down or missing wires

→ Additional avian lines installed 9/2018



The Dalles Dam Ladder/River Temperatures

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



Spill KCFS



	Secchi:		USGS: Temperatures
5/19	3.5	Sun	56.9
5/20	3.5	Mon	56.5
5/21	3.5	Tue	56.1
5/22	3.5	Wed	56.0
5/23	3.5	Thurs	56.1
5/24	3.5	Fri	56.7
5/25	3.5	Sat	56.5
	3.5	AVG	56.4

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
5/19			1.8		13.7	13.7	17.0	1.3	9.3	9.3		1.3	9.2	9.1
	1.4	10.0	1.8		13.7	13.7	17.2	1.3	9.3	9.3		1.3	9.2	9.2
	1.4	9.9	1.7		13.8	13.8	16.5	1.2	9.2	9.2		1.3	8.9	8.9
5/20			1.8		13.8	13.8	17.1	1.3	9.0	9.0		1.2	9.1	9.1
	1.4	10.0	1.7		13.8	13.8	16.7	1.4	8.9	8.9		1.3	8.9	8.9
	1.4	10.0	1.8		13.8	13.8	16.9	1.3	9.2	9.2		1.3	9.0	9.0
5/21			1.7		13.8	13.8	15.1	1.3	9.1	9.1		1.2	9.6	9.6
	1.4	9.9	1.7		13.8	13.8	14.7	1.4	8.6	8.6		1.1	9.2	9.2
	1.4	10.0	1.7		13.9	13.9	15.4	1.4	8.4	8.4		1.3	8.9	8.9
5/22			1.5		13.7	13.7	14.4	1.3	8.6	8.6		1.2	9	9
	1.3	10.0	1.7		13.8	13.8	14.9	1.3	8.6	8.6		1.3	8.5	8.5
	1.4	10.0	1.6		13.9	13.9	14.8	1.4	8.5	8.5		1.4	8.4	8.4
5/23			1.7		13.9	13.9	14.8	1.4	8.6	8.6		1.4	8.5	8.5
	1.4	10.0	1.8		13.8	13.8	14.8	1.5	8.4	8.4		1.3	8.5	8.5
	1.4	10.0	1.8		13.8	13.8	14.8	1.5	8.4	8.4		1.4	8.4	8.4
5/24			1.6		13.9	13.9	14.1	1.3	8.5	8.5		1.3	8.6	8.6
	1.4	10.0	1.7		13.8	13.8	13.9	1.4	8.4	8.4		1.3	8.5	8.5
	1.4	10.0	1.7		13.8	13.8	14	1.4	8.4	8.4		1.3	8.6	8.6
5/25			1.8		13.9	13.8	13.8	1.4	8.5	8.5		1.3	8.6	8.6
	1.4	10.0	1.7		13.8	13.9	14.4	1.4	8.5	8.5		1.3	8.5	8.5
	1.4	10.0	1.8		13.8	13.8	14.6	1.5	8.5	8.5		1.3	8.4	8.4
AVG:	1.4	10.0	1.7		13.8	13.8	15.3	1.4	8.7	8.7		1.3	8.8	8.8

Fishways are inspected twice daily plus one SCADA inspection.



Goat successfully removing vegetation from upper channel. Limitations to waterline access.



Goat herders dog fell in north fishladder. Project Emergency Response Team used opportunity as training.



Happy ending by all.