

The Dalles Dam Fishway Status Report

06/08/19

Inspection Period: June 02 - June 08, 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'	21	60.2 °F
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'	Motor and brake repaired.	
Count station differential	0	≤ 0.3'		
153 Weir crest depth	1	1.3' ± 0.1'	1.3' criteria to allow shad passage; 1x too 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	2.24 fps on 6/8; range 1.79 fps at MU19, to 2.46 fps at MU17	
Transportation channel velocity	0	1.5 - 4 fps	2.39 fps on 6/8.	
North channel velocity	0	1.5 - 4 fps	2.23 fps on 6/3.	
South channel velocity	0	1.5 - 4 fps	2.98 fps on 6/8.	
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', biwklly	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 gates

Spillway open for juvenile passage.

Inspection Period: May 26 - June 01, 2019

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 count station window/crowder brush repaired and functioning. Looking into improvements for long term reliability.

Calibration check 6/3: Still working on inaccuracy issue with east entrance tailwater reading.

Collection channel dewatering pumps 5 and 6 rehab in progress.

Fishway automation parts purchase ongoing. Labor for assembly and install FY20.

Engineering evaluation of east fishway diffuser valve status to resume.

Spillway assessment in progress. Spillway crane replace and spillgate 9 repair included. Prioritizing gates 1-9 as first for rehab.

Predators;

USDA hazing from boat and shore. Increase in gull numbers in powerhouse tailrace and within spillway avian lines. Also some activity in powerhouse tailrace.

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

No sea lion sightings from dam reported this week. Last sighting was in zone SW3 on 5/9.

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_adultcoequeries_adultrunsum_queryv2.php

AWS backup - All deficiencies corrected by contractor. Compiling list for follow on contract items and spare parts.

Transformer replacement - T3 ongoing. Testing after august completion. Date to be determined

PSMFC weekly sampling for North Wasco County PUD continues. Refer to PCMFC weekly sample report.

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

Pikeminnow dam angling - 14 Pikeminnow week of June2. Total 98 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 started 6/4. Total of 18 nights of adjustment planned.

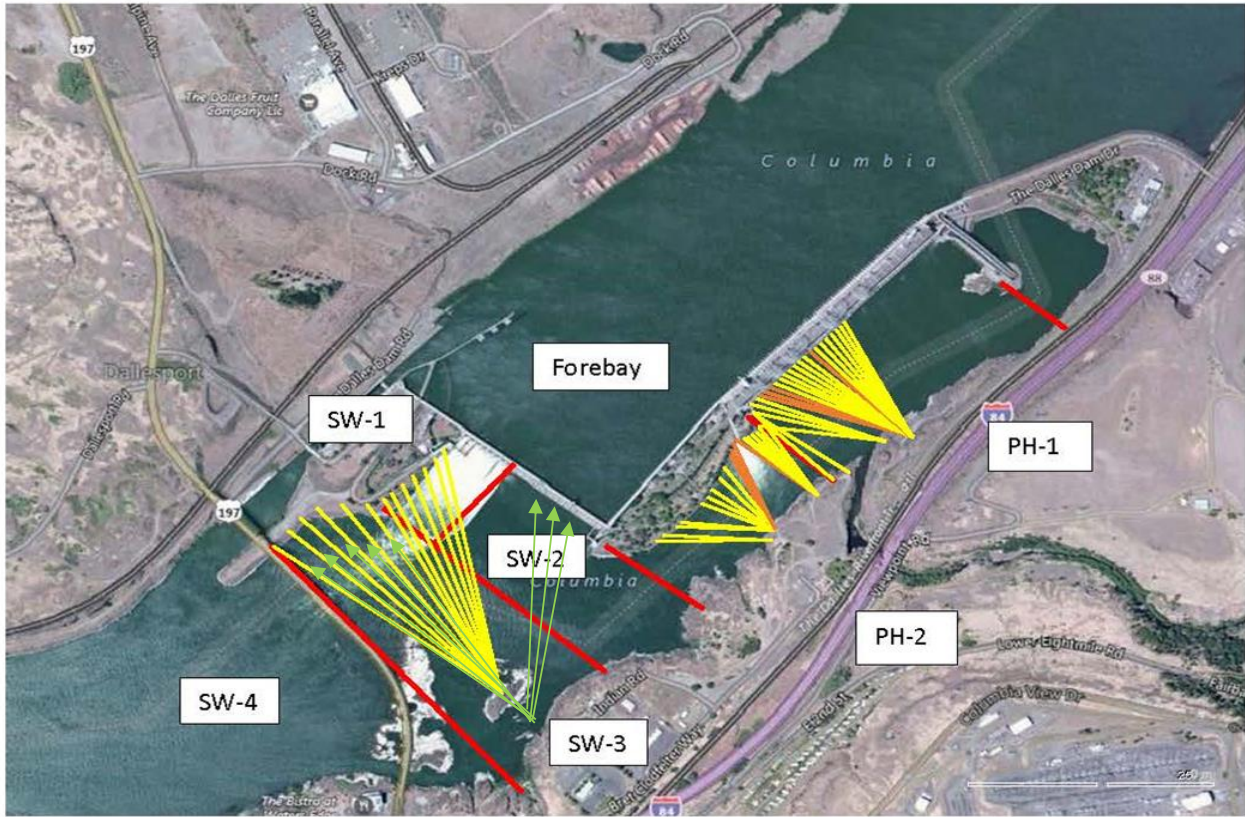
Tribal lamprey trapping - New improved hoist system installed, thanks to ingenuity of project engineer. Test lifts were successful.

Fish unit breaker replace - Fish units returned to service. Substantial cleanup likely next winter. Awaiting schedule from contractor.

Fish unit rehab - Ongoing for phase 1A.

Approved by: Mike Colesar acting for Ron Twiner

Operation Project Manager The Dalles Dam



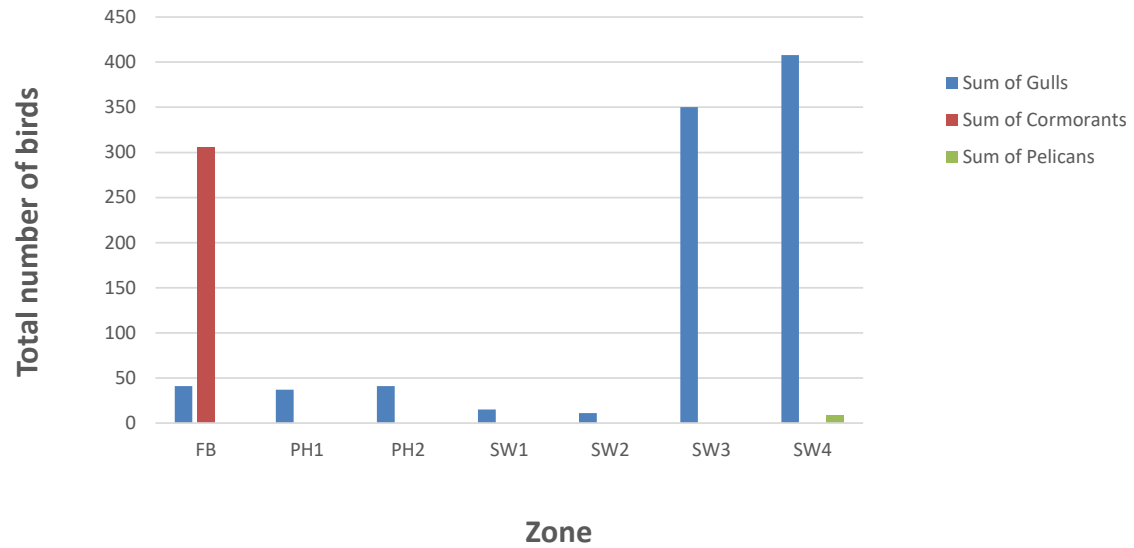
Red lines = avian zones

Yellow lines = current wires

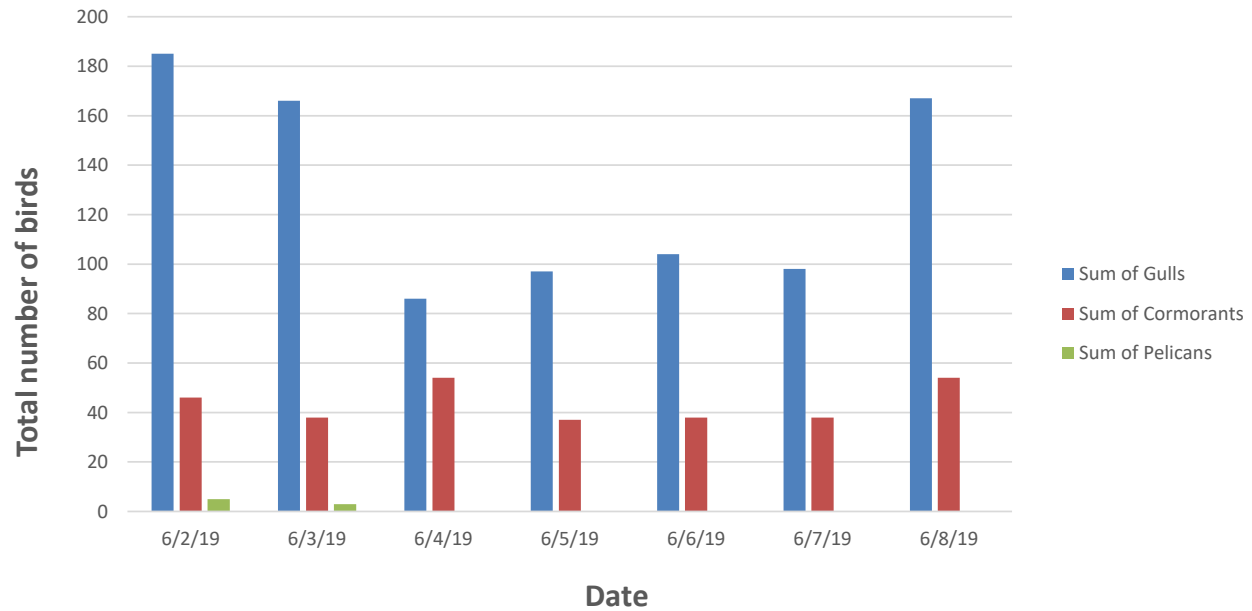
Orange lines = down or missing wires

→ Additional avian lines installed 9/2018

Bird Observations by Zone 6/2-6/8

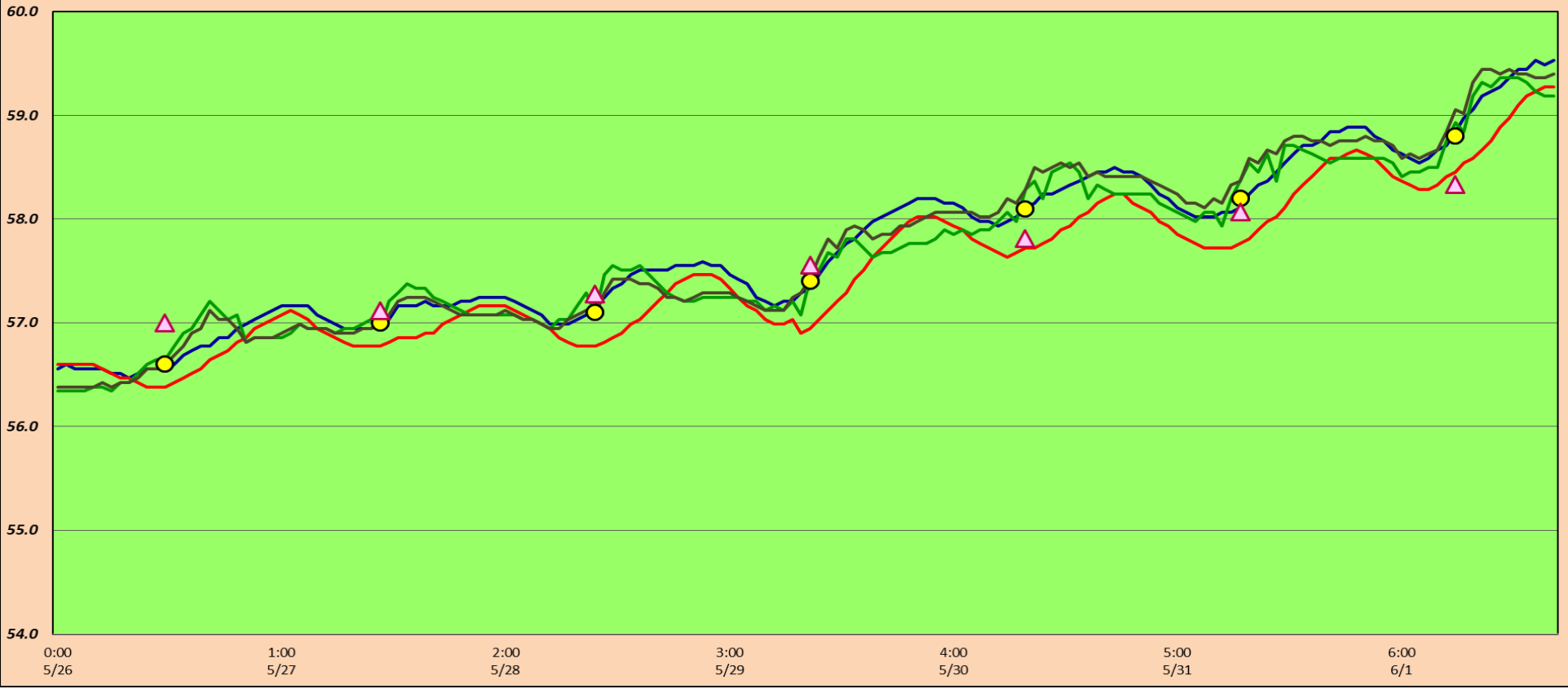


Bird Observations by Date



The Dalles Dam Fish Ladder/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
6/2	3.0	Sun 59.3
6/3	3.5	Mon 59.9
6/4	3.5	Tue 60.4
6/5	3.5	Wed 60.6
6/6	4.0	Thurs 60.5
6/7	4.0	Fri 60.4
6/8	3.5	Sat 60.5
	3.6	AVG 60.2

June

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

SCADA INSPECTION
= Out of criteria
Lamprey passage modifications

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
6/2			1.9		13.7	13.7	15.0	1.4	8.9	8.9		1.2	8.9	8.9
	1.4	9.9	1.9		13.8	13.8	15.7	1.4	9.1	9.1		1.4	8.9	8.9
	1.4	9.9	1.8		13.8	13.8	15.4	1.4	9.0	9.0		1.3	8.9	8.9
6/3			1.7		13.8	13.8	15.8	1.3	9.1	9.1		1.2	9.0	9.0
	1.3	10.0	1.8		13.8	13.8	15.4	1.4	9.0	9.0		1.3	8.9	8.9
	1.4	10.0	1.8		13.9	13.9	16.1	1.4	8.6	8.6		1.4	11.0	11.0
6/4			1.5		13.5	13.5	14.8	0.8	10.8	10.8		0.8	10.5	10.5
	1.4	10.0	1.8		13.5	13.5	15.7	1.4	8.4	8.4		1.4	8.5	8.5
	1.3	10.0	1.4		13.6	13.6	16.4	1.4	8.6	8.6		1.4	8.6	8.6
6/5			1.3		13.4	13.4	14.8	1.4	8.5	8.5		1.3	8.5	8.5
	1.4	9.9	1.4		13.5	13.5	14.9	1.0	8.6	8.6		1.3	8.6	8.5
	1.4	10.0	1.5		13.5	13.5	15.1	1.5	8.5	8.5		1.3	8.6	8.6
6/6			1.4		13.6	13.6	15.5	1.6	8.5	8.5		1.2	9.2	9.2
	1.3	10.1	1.6		13.5	13.5	15.7	1.5	8.5	8.5		1.4	8.9	8.9
	1.4	10.0	1.5		13.6	13.6	15.8	1.5	8.5	8.5		1.4	9.1	9.1
6/7			1.5		13.6	13.5	15	1.6	8.5	8.5		1.5	8.9	8.9
	1.4	10.0	1.5		13.4	13.5	14.9	1.5	8.4	8.4		1.5	8.9	8.9
	1.3	10.0	1.5		13.2	13.2	13.6	1.4	8.5	8.5		1.4	8.9	8.9
6/8			1.3		13.2	13.2	13	1.3	8.4	8.4		1.4	8.9	8.9
	1.3	10.1	1.4		13.3	13.4	13.7	1.4	8.6	8.6		1.4	9.1	9.1
	1.3	10.0	1.4		13.4	13.4	13.8	1.4	8.6	8.6		1.4	9.0	9.1
AVG:	1.4	10.0	1.6		13.6	13.6	15.1	1.4	8.7	8.7		1.3	9.0	9.0

Fishways are inspected twice daily plus one SCADA inspection.



Hoist frame at east fishway exit for tribal lamprey trapping to lift to forebay deck