

The Dalles Dam Fishway Status Report

09/22/19

Inspection Period: 9/15-9/21, 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:	21	Temperature: 69.3 °F	Secchi: 5.0 feet
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'	Average for week =	1.28		
Entrance weir N1	0	depth (≥ 8')	Average for week =	9.0		
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 157 experiencing mechanical brake failure, able to maintain criteria manually.			
Weir 158-159 differential	0	1.0' ± 0.1'				
Count station differential	0	≤ 0.3'				
153 Weir crest depth	0	1.1' ± 0.1'	occasionally exceeds 1.2			
Junction pool weir JP6	0	0.0	Average for week =	9.2		
East entrance differential	0	1.0' - 2.0'	Average for week =	1.55		
Entrance weir E1	0	No criteria				
Entrance weir E2	0	depth (≥ 8')	Average for week =	11.00		
Entrance weir E3	0	depth (≥ 8')	Average for week =	11.00		
Collection channel velocity	0	1.5 - 4 fps	2.98 fps Average	Range:	3.91 fps MU1 - 2.32 fps MU21	9/13/19
Transportation channel velocity	0	1.5 - 4 fps	2.69 fps	9/13		
North channel velocity	0	1.5 - 4 fps	4.00 fps	9/14		
South channel velocity	0	1.5 - 4 fps	4.03 fps	9/13	Low tailwater leading to higher velocities	
West entrance differential	0	1.0' - 2.0'	Average for week =	1.3	Closed 9/12 due to slack cable	
Entrance weir W1	0	depth (≥ 8')	Average for week =	0.0		
Entrance weir W2	1	depth (≥ 8')	Average for week =	8.3	left in manual	
Entrance weir W3	0	1.0' - 2.0'	Average for week =	8.3	Opened 9/12, in place of W1	
South entrance differential	0	1.0' - 2.0'	Average for week =	1.5		
Entrance weir S1	0	depth (≥ 8')	Average for week =	8.4		
Entrance weir S2	0	depth (≥ 8')	Average for week =	8.4		
JUVENILE PASSAGE						
Sluiceway operation	0	Units 1, 8, 18				
Turbine trashrack drawdown	0	<1.5', biwkly	Fish check in gatewells 9/14, Only adult shad loafing about in some wells.			
Spill volume/pattern	0	None				
Turbine Unit Priority	0	per FPP				

OTHER ISSUES:

Operation

East & North fish ladders in full operation.
Sluiceway open with 6 gates total. Units 1, 8 and 18.
Spillway closed

Outages

T10 (MU19 & 20) forced out through 10/28/2021 due to acetylene levels
T5 out 9/3/2019 -11/25/2019 for T5 GSU Replacement & MU9 O/H
MU10 out 9/3/2019 - 11/25/2019 for Annual

Maintenance

Calibration check 9/13: east and west TW and CH off West gates 1 and 3 off. Maintenance notified.
Collection channel dewatering pumps 5 and 6 rehab ongoing. Completion prior to Dec for dewatering.
Fishway automation replacement purchase ongoing. Labor for assembly and install FY20.
Engineering evaluation of east fishway diffuser valve status/rehab to resume.
Spillway assessment (MRER); No funding for FY20. Importance of spillgate 9 fish priority considered in report.
Weir 157 secured out of ladder. To be operated in manual through remainder of the passage season.
West entrance weir E1 closed due to cable problems. Weir E3 operated in its place providing two weirs at >8' depth

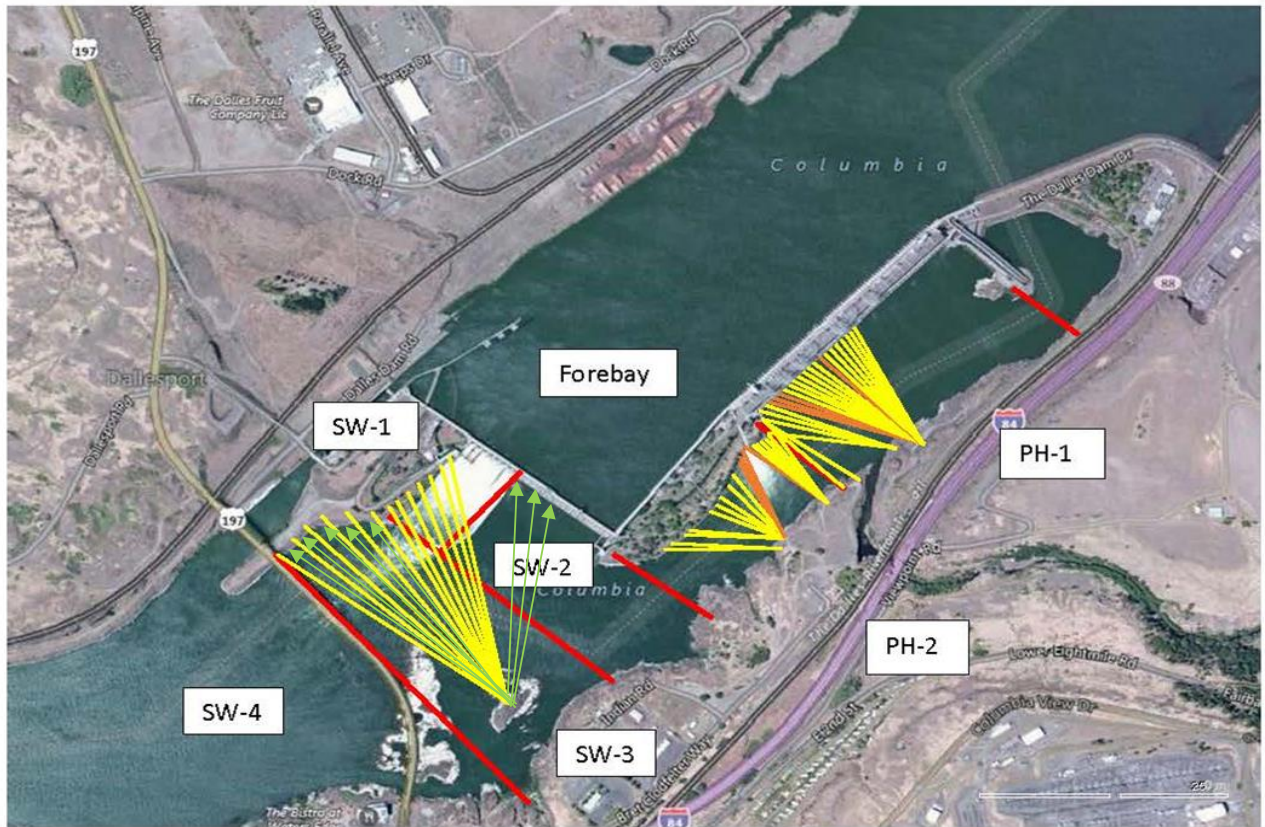
Predators

USDA hazing season concluded July 31. Post season meeting held 9/10 for next season planning.
No pelicans observed, Cormorant and gull remain in small numbers
Sea Lions not observed from dam year to date.

Research/Construction/Contractors

HDC removed temperature string from forebay, data analysis underway
Four Peaks fish counting continues.
For fish count data refer to; [FPC FISH COUNTS](#)
AWS backup - Moving forward with follow on contract items and spare parts. AWS will be operational Feb1.
PSMFC weekly PUD sampling done for season. To resume next April.
PITAGS north and east fishladder data collection at count stations continues.
No angling for reporting week=2228 YTD. **Bass/Walleye catch and release continues.** States in 3rd year of internal discussions on the matter.
ODFW monthly fishway inspections ongoing.
Lamprey minor mods - No more work planned at this time.
U of I - Second season of lamprey passage night flow testing completed. Awaiting report.
Lamprey trapping at east count station - Concluded 9/13 with 603 lamprey translocated.
Fish unit breaker replace.- Planning second season work Dec1-Mid Jan. Multiple measures taken to avoid last years unacceptable schedule slip.
Fish unit rehab - Ongoing for phase 1A. Planning operation scenario during construction.

Approved by: Mike Colesar
Operation Project Manager The Dalles Dam



Red lines = avian zones

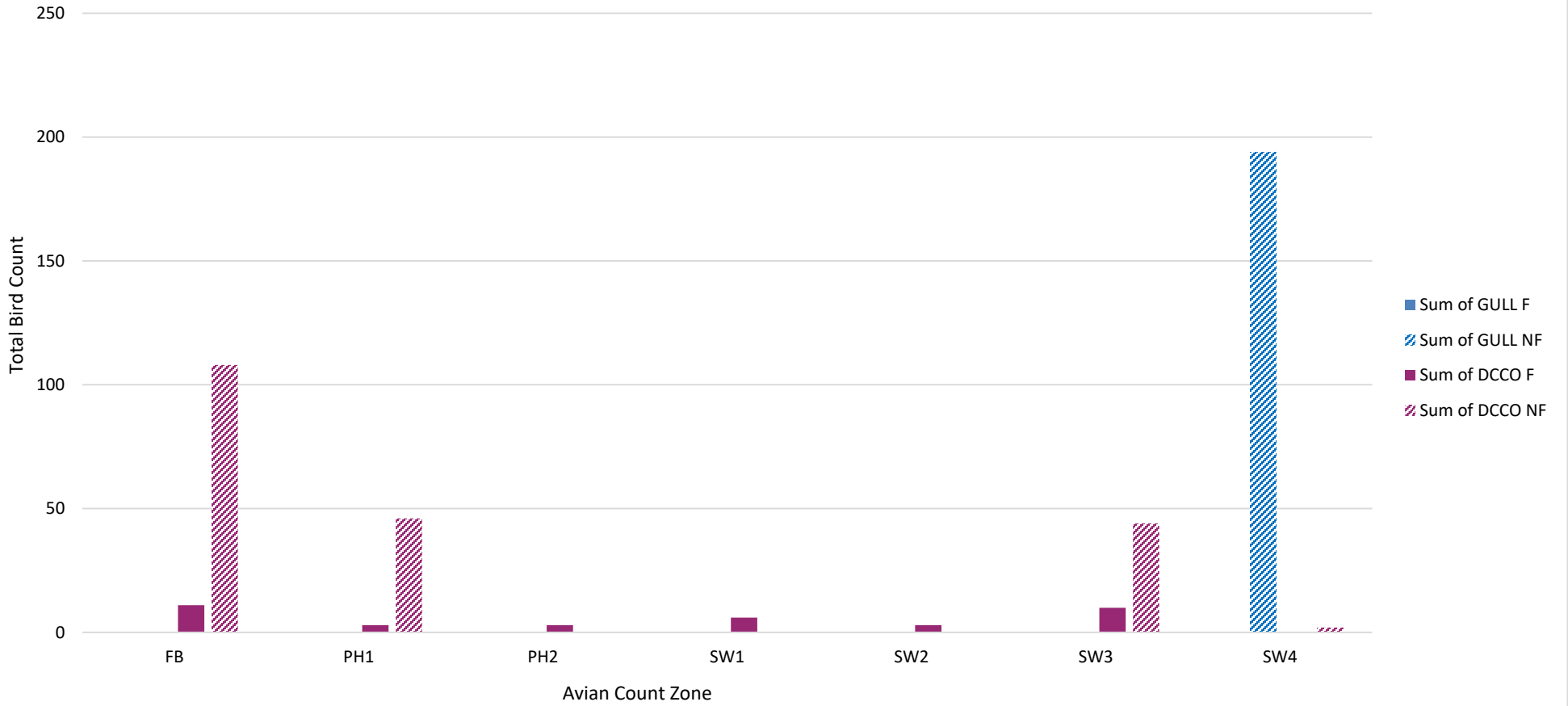
Yellow lines = current wires

Orange lines = down or missing wires



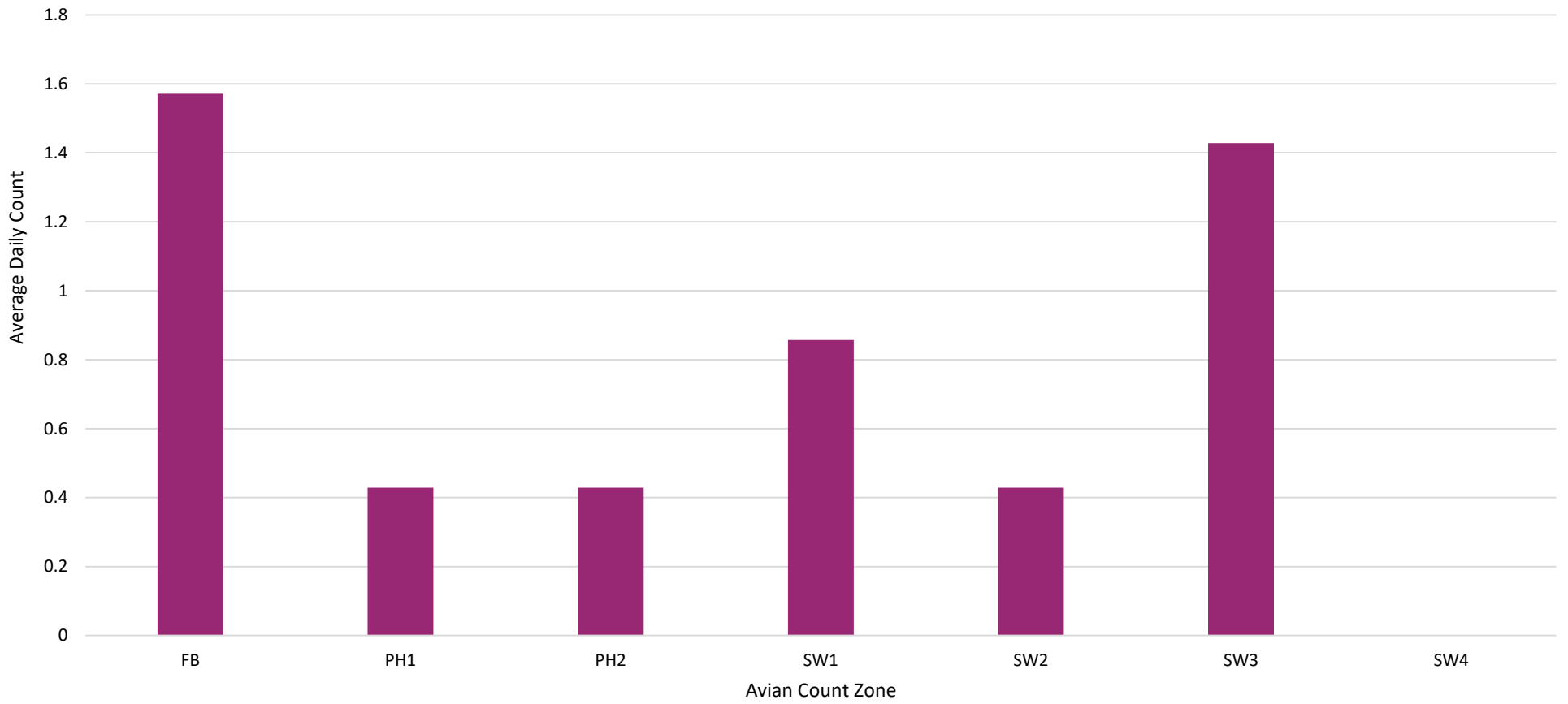
Additional avian lines installed 9/2018

Bird Activity 9/14 - 9/21



Foraging activity mainly limited to cormorants (DCCO), with some gulls present, though not actively foraging.

Daily Cormorant (DCCO) foraging by zone



Cormorants are foraging more heavily in the forebay (FB) and zone SW3.

The Dalles Dam Fish Ladder(s)/River Temperatures



			USGS:
	Secchi:		Temperatures
9/15	5.0	Sun	70.3
9/16	5.0	Mon	69.9
9/17	5.0	Tue	69.2
9/18	5.0	Wed	69.1
9/19	5.0	Thurs	69.1
9/20	5.0	Fri	68.9
9/21	5.0	Sat	68.4
	5.0	AVG	69.3

[Sept. Temps](#)

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					West Entrance			South Entrance			
	Differential	N1 Depth	Differential	E1 Depth	E2 Depth	E3 Depth	JP 6	Differential	W1	W2	W3	Differential	S1	S2
9/15			1.5		11.0	10.9	8.2	1.3		8.1	8.1	1.5	8.3	8.2
	1.3	8.8	1.5		10.9	11.1	7.9	1.1		8.2	8.2	1.3	8.7	8.3
	1.3	8.6	1.5		11.1	11.1	8.3	1.2		8.3	8.3	1.4	8.3	8.4
9/16			1.4		10.9	11.0	8.0	1.2		8.1	8.2	1.5	8.2	8.3
	1.2	8.8	1.5		11.1	11.0	8.1	1.3		8.2	8.2	1.4	8.4	8.4
	1.3	8.8	1.5		10.9	10.9	8.3	1.2		8.1	8.1	1.4	8.3	8.3
9/17			1.7		11.0	11.0	9.1	1.4		8.3	8.3	1.4	8.5	8.5
	1.2	8.7	1.8		11.0	11.0	9.3	1.3		8.2	8.2	1.5	8.5	8.5
	1.4	9.8	1.6		11.0	11.0	9.4	1.4		8.5	8.5	1.5	8.4	8.4
9/18			1.5		11.0	11.0	9.6	1.4		8.4	8.4	1.6	8.2	8.2
	1.2	9.1	1.4		11.1	11.1	9.3	1.3		8.5	8.5	1.5	8.5	8.5
	1.2	9.2	1.5		10.9	10.9	9.3	1.2		8.3	8.3	1.4	8.3	8.3
9/19			1.3		11.0	11.0	8.4	1.2		8.3	8.3	1.3	8.3	8.3
	1.2	9.0	1.3		11.0	11.0	8.5	1.1		8.3	8.3	1.4	8.3	8.3
	1.2	8.9	1.5		11.0	11.0	8.9	1.3		8.3	8.3	1.4	8.4	8.4
9/20			1.8		10.9	10.9	10.0	1.5		8.3	8.3	1.4	8.4	8.4
	1.3	9.1	1.6		11.0	11.0	9.9	1.5		8.3	8.3	1.5	8.4	8.4
	1.4	9.0	1.7		11.0	11.0	10.1	1.5		8.4	8.4	1.4	8.3	8.3
9/21			1.6		11.0	11.0	10.2	1.6		8.3	8.3	1.5	8.4	8.4
	1.4	9.0	1.5		11.1	11.1	10.6	1.4		8.3	8.1	1.6	8.2	8.4
	1.3	9.2	1.6		11.1	11.0	10.9	1.5		8.2	8.3	1.5	8.2	8.3
AVG:	1.3	9.0	1.6		11.0	11.0	9.2	1.3		8.3	8.3	1.5	8.4	8.4

Fishways are inspected twice daily plus one SCADA inspection.