

The Dalles Dam Fishway Status Report

09/29/19

Inspection Period: 9/22-9/28, 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: 21	Temperature: 67.2 °F
			Comments: Soft constraint on FB 159.5'	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 =	1.39
Entrance weir N1	0	depth (≥ 8')	Average for week =	9.2
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 =	11.2
East entrance differential	0	1.0' - 2.0'	Average for week =	1.52
Entrance weir E1	0	No criteria	Opened and adjusted to maintain differential	
Entrance weir E2	0	depth (≥ 8')	Average for week =	11.00
Entrance weir E3	0	depth (≥ 8')	Average for week =	11.02
Collection channel velocity	0	1.5 - 4 fps	2.37 fps Average	Range: 2.87 fps MU2 - 1.95 fps MU19 9/24/19
Transportation channel velocity	0	1.5 - 4 fps	2.24 fps 9/25	
North channel velocity	0	1.5 - 4 fps	2.08 fps 9/25	
South channel velocity	0	1.5 - 4 fps	3.57 fps 9/26	
West entrance differential	0	1.0' - 2.0'	Average for week =	1.5
Entrance weir W1	0	depth (≥ 8')	Average for week =	0.0 Closed 9/12 due to slack cable
Entrance weir W2	0	depth (≥ 8')	Average for week =	8.6
Entrance weir W3	0	1.0' - 2.0'	Average for week =	8.6 Opened 9/12, in place of W1. W3 now experiencing slack cable.
South entrance differential	0	1.0' - 2.0'	Average for week =	1.5
Entrance weir S1	0	depth (≥ 8')	Average for week =	8.3
Entrance weir S2	0	depth (≥ 8')	Average for week =	8.3
JUVENILE PASSAGE				
Sluiceway operation	0	Units 1, 8, 18		
Turbine trashrack drawdown	0	<1.5', biwkly	Drawdown inspection gatewells 9/27, one adult shad mort in MU 16-1.	
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
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 9/26: Entrance weir W1 closed due to mechanical issue. W3 opened in place.
Collection channel dewatering pumps 5 and 6 rehab ongoing. New pump motor ordered. 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 included.
Weir 157 secured out of ladder. To be operated in manual through remainder of the passage season. Forebay soft constraint 159.5' may continue.
West entrance weir W1 closed due to cable problems. Weir E3 operated in its place providing two weirs at >8' depth

Predators

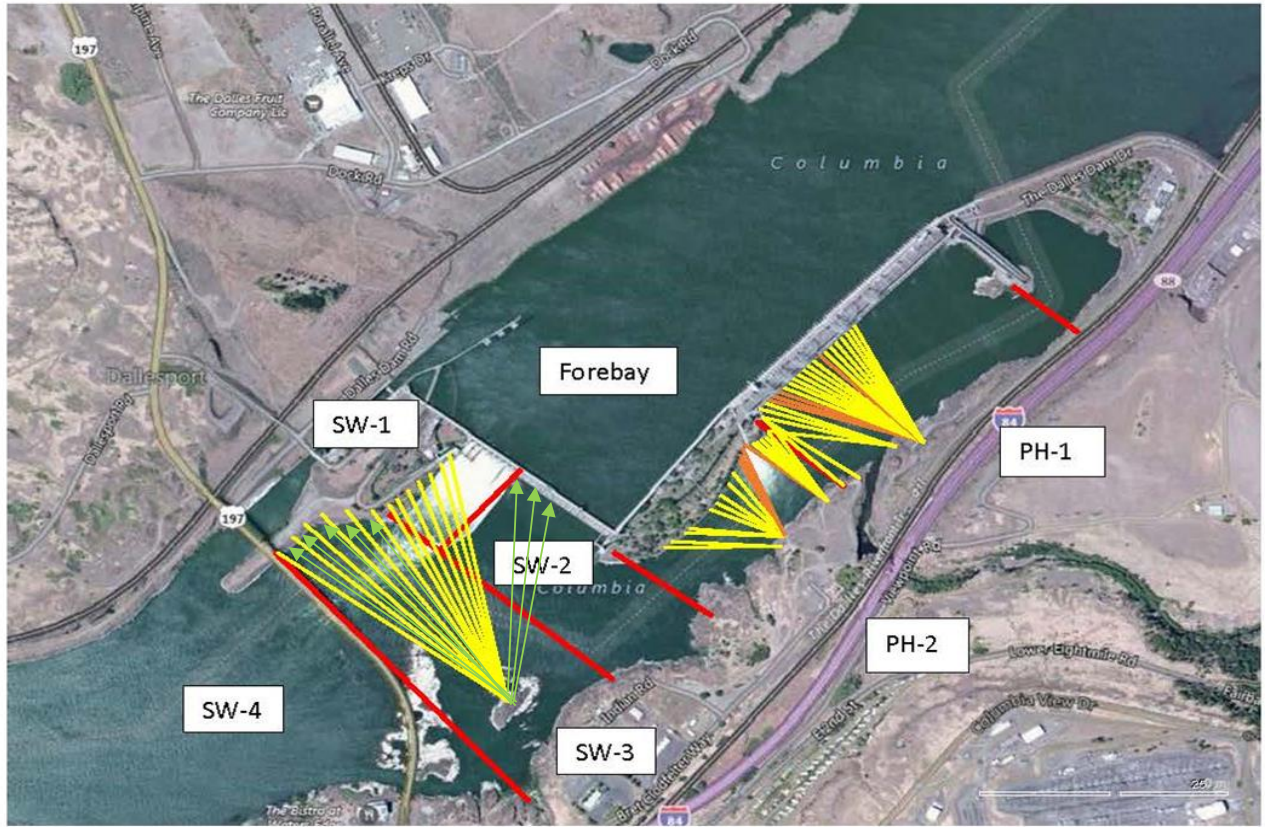
USDA hazing resumes 4/15/20.
One pelican observed fly over PH1, Cormorant and gull remain in small numbers
Sea Lions not observed from dam year to date.

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 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

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Red lines = avian zones

Yellow lines = current wires

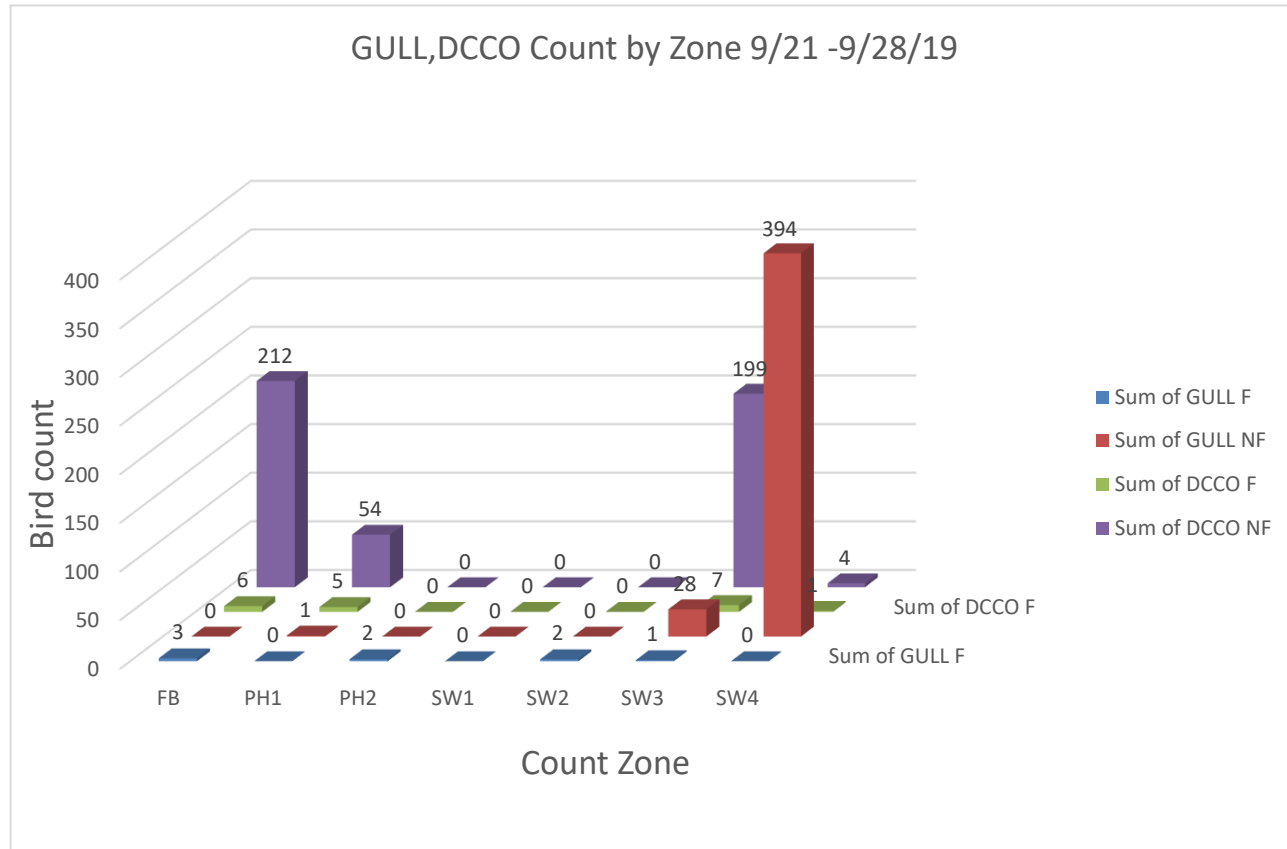
Orange lines = down or missing wires



Additional avian lines installed 9/2018

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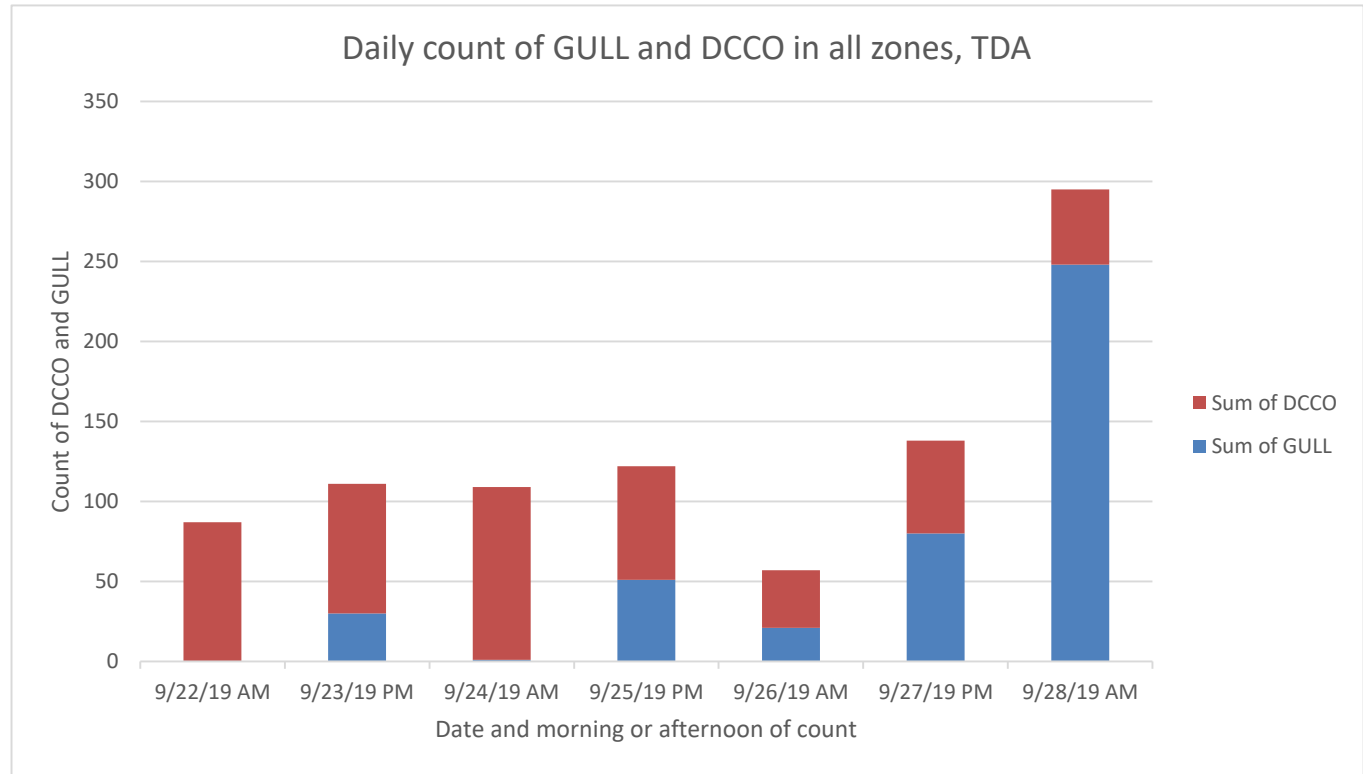
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Foraging activity mainly limited to cormorants (DCCO) in FB, PH1 and SW3, with some GULL present and little foraging.

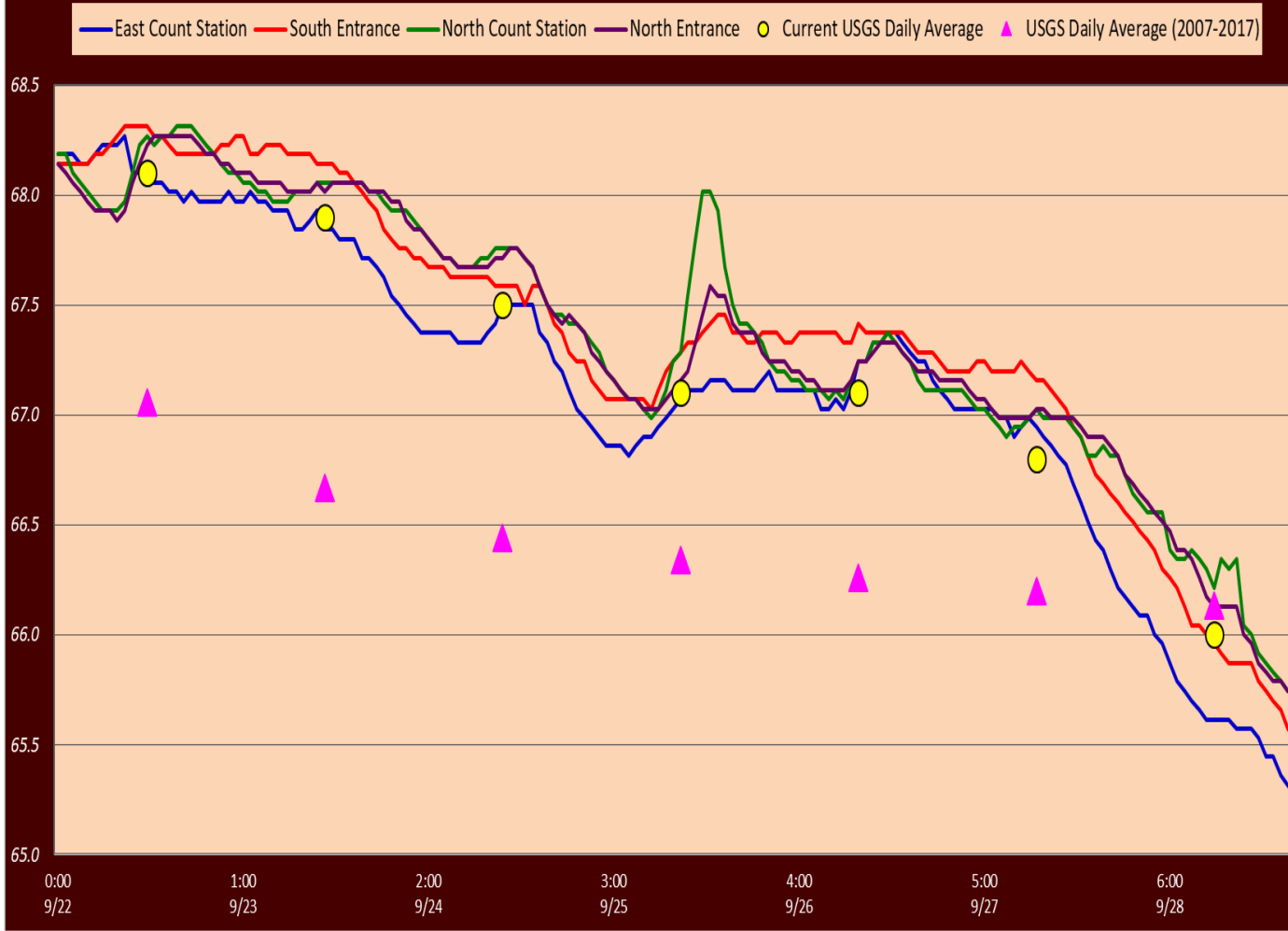
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Cormorants (DCCO) and GULL appear to displace each other in daily counts.

The Dalles Dam Fish Ladder(s) - River Temperatures





Showers bring out rainbows in the Dalles forebay 9/28/19.

			USGS:
Secchi:		Temperatures	
9/22	5.0	Sun	68.1
9/23	5.0	Mon	67.9
9/24	5.0	Tue	67.5
9/25	5.0	Wed	67.1
9/26	5.0	Thurs	67.1
9/27	5.0	Fri	66.8
9/28	5.0	Sat	66.0
	5.0	AVG	67.2

[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											
	Differential	N1 Depth	East Entrance					West Entrance				South Entrance		
			Differential	E1 Depth	E2 Depth	E3 Depth	JP 6	Differential	W1	W2	W3	Differential	S1	S2
9/22			1.7	8.4	11.0	11.0	11.5	1.6		8.3	8.3	1.6	8.3	8.3
	1.4	9.1	1.6	10.0	10.9	10.9	11.4	1.6		8.4	8.4	1.5	8.3	8.3
	1.5	9.1	1.6	9.9	11.0	11.0	11.3	1.6		8.4	8.4	1.5	8.4	8.4
9/23			1.5	10.1	11.0	11.0	11.0	1.6		8.3	8.3	1.5	8.4	8.4
	1.4	9.2	1.5	9.9	11.0	11.0	10.8	1.4		8.3	8.3	1.5	8.3	8.3
	1.4	9.2	1.5	10.0	10.9	10.9	10.9	1.6		8.3	8.3	1.6	8.3	8.3
9/24			1.6	9.9	11.0	11.0	10.8	1.5		8.3	8.3	1.5	8.3	8.3
	1.4	9.1	1.6	9.9	11.0	11.0	10.8	1.7		8.2	8.2	1.6	8.3	8.3
	1.3	9.1	1.5	10.0	11.1	11.1	11.0	1.6		8.5	8.5	1.5	8.4	8.4
9/25			1.5	10.0	11.0	11.0	11.0	1.5		8.8	8.8	1.5	8.3	8.3
	1.4	9.2	1.4	9.9	11.0	11.0	11.0	1.4		8.8	8.7	1.5	8.3	8.3
	1.4	9.1	1.4	10.0	11.1	11.1	11.1	1.4		8.8	8.7	1.6	8.3	8.3
9/26			1.6	10.0	11.0	11.0	11.2	1.5		8.8	8.8	1.5	8.3	8.3
	1.4	9.7	1.5	10.0	11.0	11.0	11.4	1.5		8.8	8.8	1.6	8.3	8.3
	1.3	9.2	1.5	10.0	11.0	11.0	11.4	1.4		8.8	8.8	1.6	8.3	8.3
9/27			1.4	10.1	10.9	10.9	10.9	1.4		8.8	8.8	1.5	8.3	8.3
	1.4	9.2	1.5	10.0	11.1	11.1	11.5	1.6		8.8	8.8	1.4	8.3	8.3
	1.3	9.3	1.5	10.0	11.0	11.1	11.2	1.5		8.7	8.7	1.5	8.3	8.3
9/28			1.5	10.0	11.0	11.1	11.7	1.6		8.8	8.8	1.5	8.3	8.3
	1.4	9.3	1.5	10.0	11.0	11.1	11.5	1.4		8.9	8.9	1.6	8.3	8.2
	1.4	9.3	1.6	9.9	11.0	11.0	11.4	1.4		8.8	8.8	1.6	8.3	8.3
AVG:	1.4	9.2	1.5	9.9	11.0	11.0	11.2	1.5		8.6	8.6	1.5	8.3	8.3

Fishways are inspected twice daily plus one SCADA inspection.