

# The Dalles Dam Fishway Status Report

12/07/19

Inspection Period: 12/1-12/7, 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: FU's off 12/1 for dewatering	Temperature: Secchi:
			7	44.4 °F 5.0 feet
<b>NORTH FISHWAY</b>				
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 =	1.33
Entrance weir N1	0	depth (≥ 8')	Average for week =	9.2
Entrance weir N2	0	Closed		
PUD Intake differential	0	≤ 0.5'		.4 to .5'
<b>EAST FISHWAY - Dewatered for annual maintenance</b>				
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'		
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		
Transportation channel velocity	0	1.5 - 4 fps		
North channel velocity	0	1.5 - 4 fps	12/14/19 3.62fps	
South channel velocity	0	1.5 - 4 fps		
West entrance differential	0	1.0' - 2.0'		
Entrance weir W1	0	depth (≥ 8')		
Entrance weir W2	0	depth (≥ 8')		
Entrance weir W3	0	1.0' - 2.0'		
South entrance differential	0	1.0' - 2.0'		
Entrance weir S1	0	depth (≥ 8')		
Entrance weir S2	0	depth (≥ 8')		
<b>JUVENILE PASSAGE</b>				
Sluiceway operation	0	Units 1, 8, 18	Normal	
Turbine trashrack drawdown	0	<1.5', biweekly	12/15/19 some shad morts.	
Spill volume/pattern	0	None		
Turbine Unit Priority	0	per FPP		
Gatewells	0	per FPP	12/13 fish check MU 2, 5, 8, 21 and 22 Juv. shad present with mortality.	

## OTHER ISSUES:

### Operations

North fish ladder in operation

East fish ladder dewatered to tailwater 12/2, due to pump failure(s) dewater below tailwater scheduled for 12/10

Spillway closed

### Outages

T10 (MU19 & 20) FOOS through 10/28/2021 due to acetylene levels

MU1 and MU2 restricted to 160 MW combined through 5/28/2020

MU13 OOS 0600 9/23/2019 - 1700 7/22/2020 for Hydraulic Oil System Repairs

MU2 FOOS through 1/2/2019 for hydraulic repairs

MU12 OOS 0001 11/26/2019 - 1700 2/10/2020 T6 GSU Replacement & Annual

MU11 OOS 0400 11/26/2019 - 1700 2/20/2020 T6 GSU Replacement & O/H

F1 & F2 OOS 0001 12/1/2019 - 1700 2/10/2020 for Annual, O/H, FUBB

T1 & T3 OOS 0600 12/2/2019 - 1700 1/7/2020 for FUBB Upgrades

### Maintenance

Calibration check 12/12/19, all North entrances in criteria.

Collection channel dewatering pumps 5 and 6 removed for rehab. New pump motor ordered.

Fishway automation installation beginning 12/2. Brackets and sensors installation at east entrance.

Evaluating east fishway diffuser valve status for rehab.

Dewatering south entrance auxiliary water conduit to repair failed diffuser valves.

Preparing work area for improved 3 expansion joint repairs on east fishladder.

Damage of a weir cap on east entrance repair in progress.

Spillway assessment (MRER); No funding for FY20. Importance of spillgate 9 fish priority included.

Weir 157 brake repair in progress. Removing weirs 154 and 155 for wheel replacement. Will also install plate on lift connection for lamprey.

West entrance weir W1 closed due to cable problems. Repair during winter outage. Weir W3 operated in its place providing two weirs at >8' depth

### Predators

Green laser used to haze piscivorous birds for effectiveness testing. Refer to tab. Report to follow.

USA hazing resumes 4/15/20

Cormorant and gull numbers fluctuating daily, with expected fall numbers.

No sea lion observations this week. Last sighting May9.

### Research/Construction/Contractors

Four Peaks fish counting concluded October 31. Cleaning count stations

AWS backup - Follow on contract in progress. Return to service delayed due to parts delivery. Commissioning scheduled third week Feb.

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

Dam angling 2019 total 2228 pikeminnow, 98 smallmouth bass and 6 walleye caught. **Bass/Walleye released.**

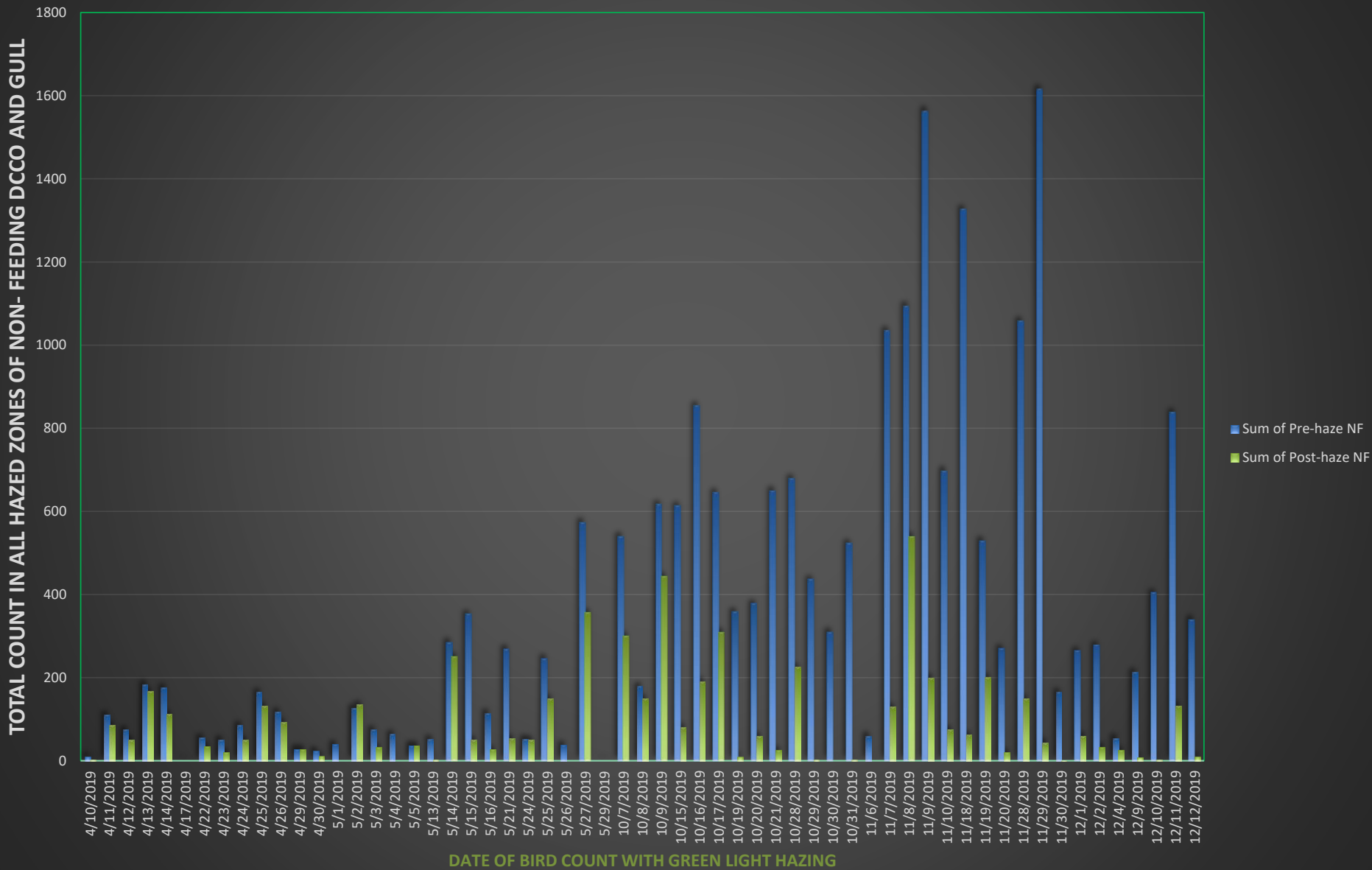
Fish unit breaker replace.- Planning third season work Dec1-end Jan. Commissioning first week of Feb.

Fish unit rehab - Phase 1A. Planning operation scenario during construction. No funding.

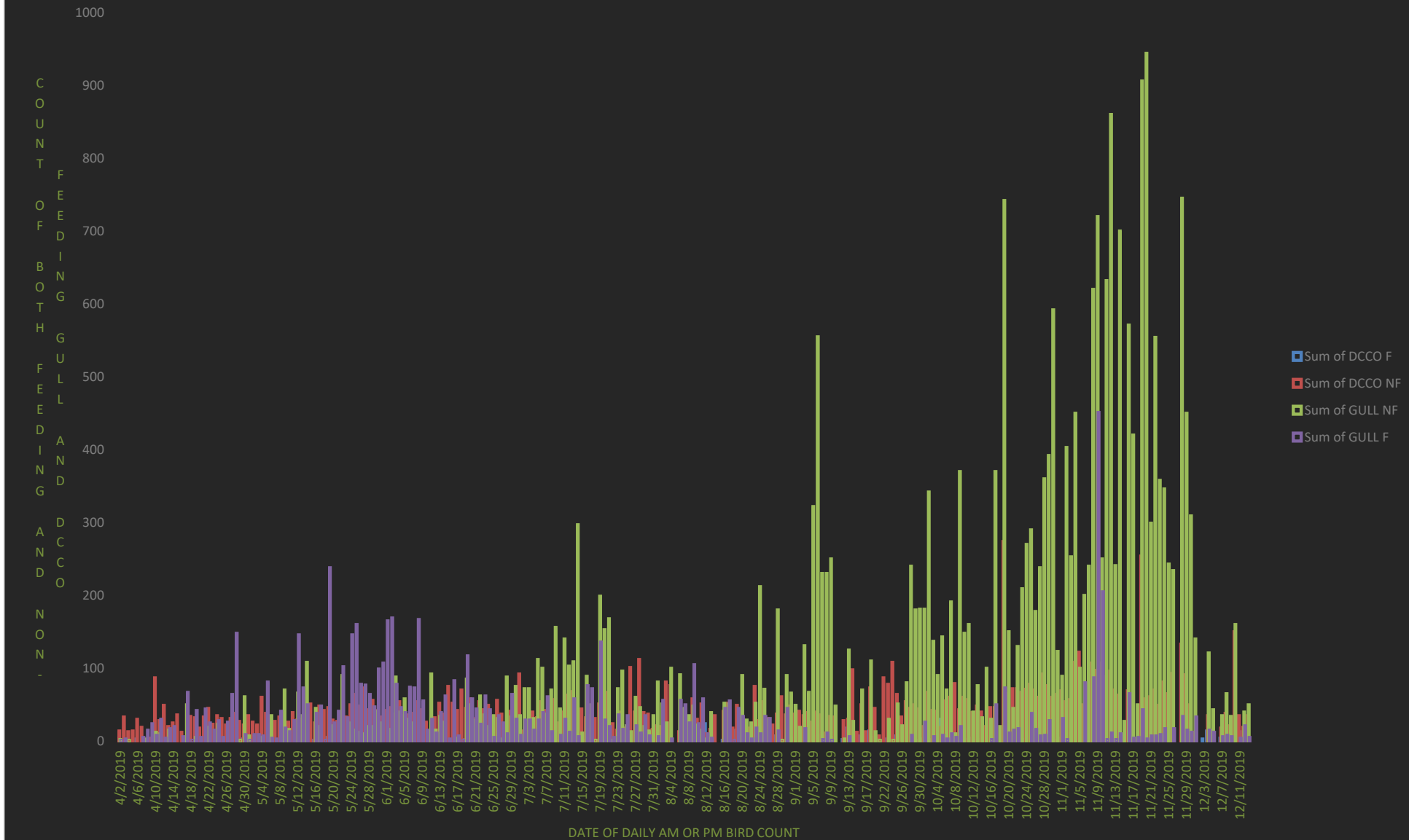
Approved by: Mike Colesar

Operation Project Manager The Dalles Dam

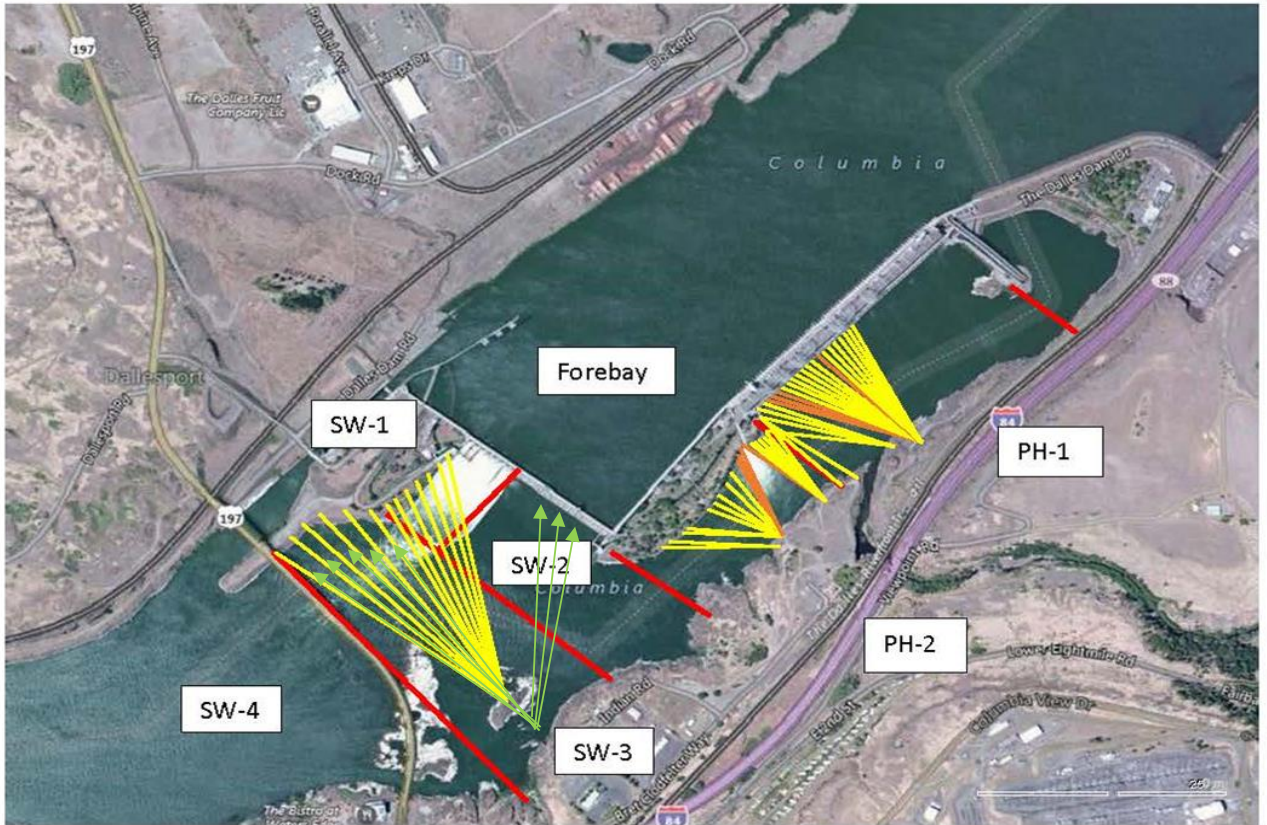
# NON-FORAGING BIRDS PRE AND POST GREEN LIGHT DETERRENT COUNT APRIL TO DECEMBER 2019



## GULL and DCCO Daily Count April to Dec. 2019



Note increased numbers of birds feeding on salmon in May as opposed to non feeding on juvenile shad in the fall. Daily fluctuations may be due to AM versus PM daily count time.



Red lines = avian zones

Yellow lines = current wires

Orange lines = down or missing wires



Additional avian lines installed 9/2018

# The Dalles Dam Fish Ladder(s)-River Temperatures

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



East Ladder taken out of service 12/1

USGS:		
	Secchi:	Temperatures
12/8	5.0	Sun 44.9
12/9	5.0	Mon 44.8
12/10	5.0	Tue 44.6
12/11	5.0	Wed 44.4
12/12	5.0	Thurs 44.1
12/13	5.0	Fri 43.9
12/14	5.0	Sat 43.8
	5.0	AVG 44.4

[Dec temps](#)

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

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
12/8	1.2	9.3												
12/9	1.2	9.4												
12/10	1.3	9.2												
12/11	1.4	9.1												
12/12	1.4	9.1												
12/13	1.4	9.2												
12/14	1.4	9.2												
<b>AVG:</b>	<b>1.3</b>	<b>9.2</b>												

Ladder dewatered for winter maintenance

*Fishways are inspected once daily during winter maintenance period.*