

# The Dalles Dam Fishway Status Report

02/09/20

Inspection Period: 2/2-2/8, 2020

## 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: 9		Temperature: 40.5 °F
			Comments: FISH Units testing		Secchi: 4.8 feet
<b>NORTH FISHWAY</b>					
Exit differential	0	≤ 0.5'	NORTH LADDER Winter OOS		
Count station differential	0	≤ 0.3'			
Weir crest depth	0	1.0' ± 0.1'			
Entrance differential	0	1.0' - 2.0'			
Entrance weir N1	0	depth (≥ 8')			
Entrance weir N2	0	Closed			
PUD Intake differential	0	≤ 0.5'			
<b>EAST FISHWAY</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	Average for week =	13.6	
East entrance differential	3	1.0' - 2.0'	Average for week =	0.78	
Entrance weir E1	0	No criteria	Opened and adjusted to maintain differential during AWS operation 2/2 to 2/8		
Entrance weir E2	0	depth (≥ 8')	Average for week =	9.27	
Entrance weir E3	0	depth (≥ 8')	Average for week =	9.50	
Collection channel velocity	0	1.5 - 4 fps	fps Average	Range:	
Transportation channel velocity	0	1.5 - 4 fps	fps		
North channel velocity	0	1.5 - 4 fps	fps		
South channel velocity	0	1.5 - 4 fps	fps		
West entrance differential	3	1.0' - 2.0'	Average for week =	1.7	AWS system in operation, West and South gates closed.
Entrance weir W1	0	depth (≥ 8')	Average for week =	0.0	
Entrance weir W2	0	depth (≥ 8')	Average for week =	2.2	
Entrance weir W3	0	1.0' - 2.0'	Average for week =	2.1	
South entrance differential	3	1.0' - 2.0'	Average for week =	2.2	
Entrance weir S1	0	depth (≥ 8')	Average for week =	-0.7	
Entrance weir S2	0	depth (≥ 8')	Average for week =	0.0	
<b>JUVENILE PASSAGE</b>					
Sluiceway operation	0	Units 1, 8, 18			
Turbine trashrack drawdown	0	<1.5', biwklly			
Spill volume/pattern	0	None			
Turbine Unit Priority	0	per FPP			
Gatewells					

## OTHER ISSUES:

### Fishway Operations

North fish ladder dewatered 2/5  
East fish ladder rewatered Jan30.  
Spillway closed  
AWS backup for east ladder opened 2/5.

### Unit 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 9/23/2019 - 7/22/2020 for Hydraulic Oil System Repairs  
MU12 OOS 11/26/2019 - 2/10/2020 T6 GSU Replacement & Annual  
MU11 OOS 11/6/2019 - 2/20/2020 T6 GSU Replacement & O/H  
F1 & F2 OOS 12/1/2019 - 2/10/2020 for Annual, O/H, FUBB. Commission testing week fo Feb10

### Maintenance

Calibration check, 2/4/20, Several adjustments made to east ladder entrance weirs.  
Five of 6 collection channel dewatering pumps removed for repair/rehab. Awaiting new pump motors for installation.  
Fishway automation replacement installation starting. Brackets for sensors installed at east entrance. PLC assembly start late Feb. Panel install through summer.  
Planning underway for diffuser valve overhauls  
Spillway assessment (MRER); No funding for FY20. Spillgate 9 fish priority included.  
Planning for north fishway outage in Feb. Maintenance items; ladder vegetation removal, count station diffuser and expansion joint repair, N1 weir wheel/guide repair  
ROV inspection Jan 28 of powerhouse intakes found missing vanes on fish unit trashrack 1-1. Repair planned for next season.

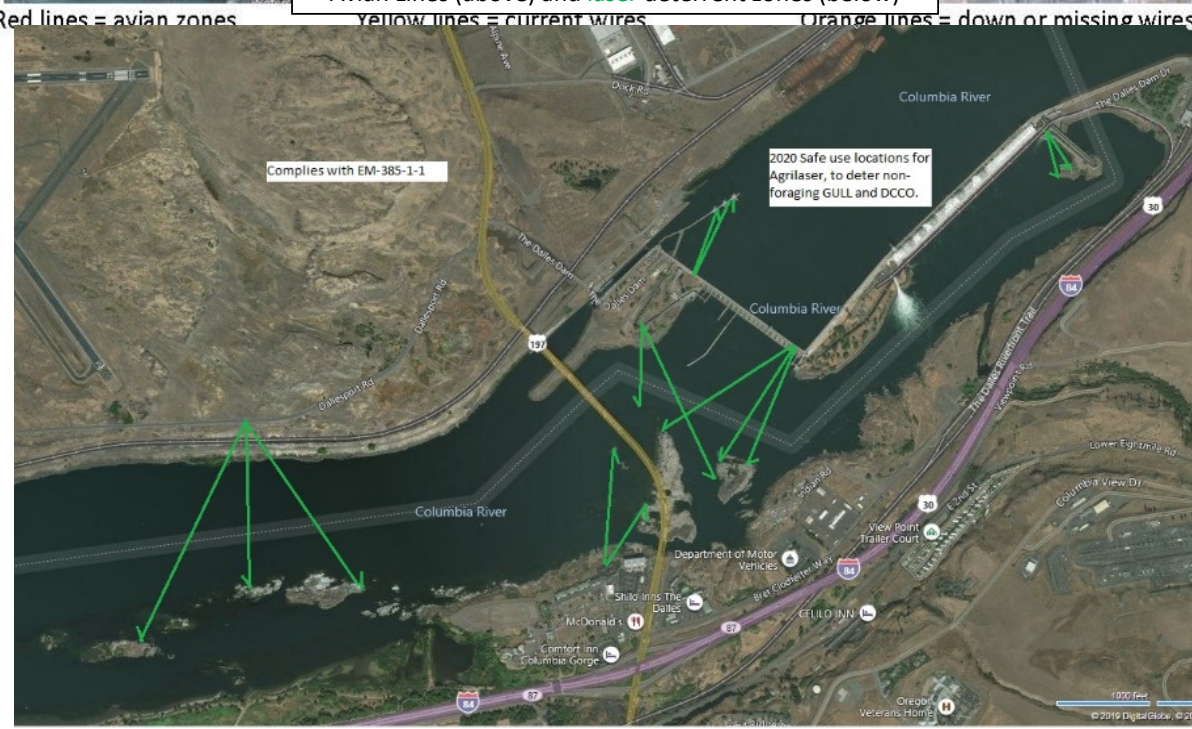
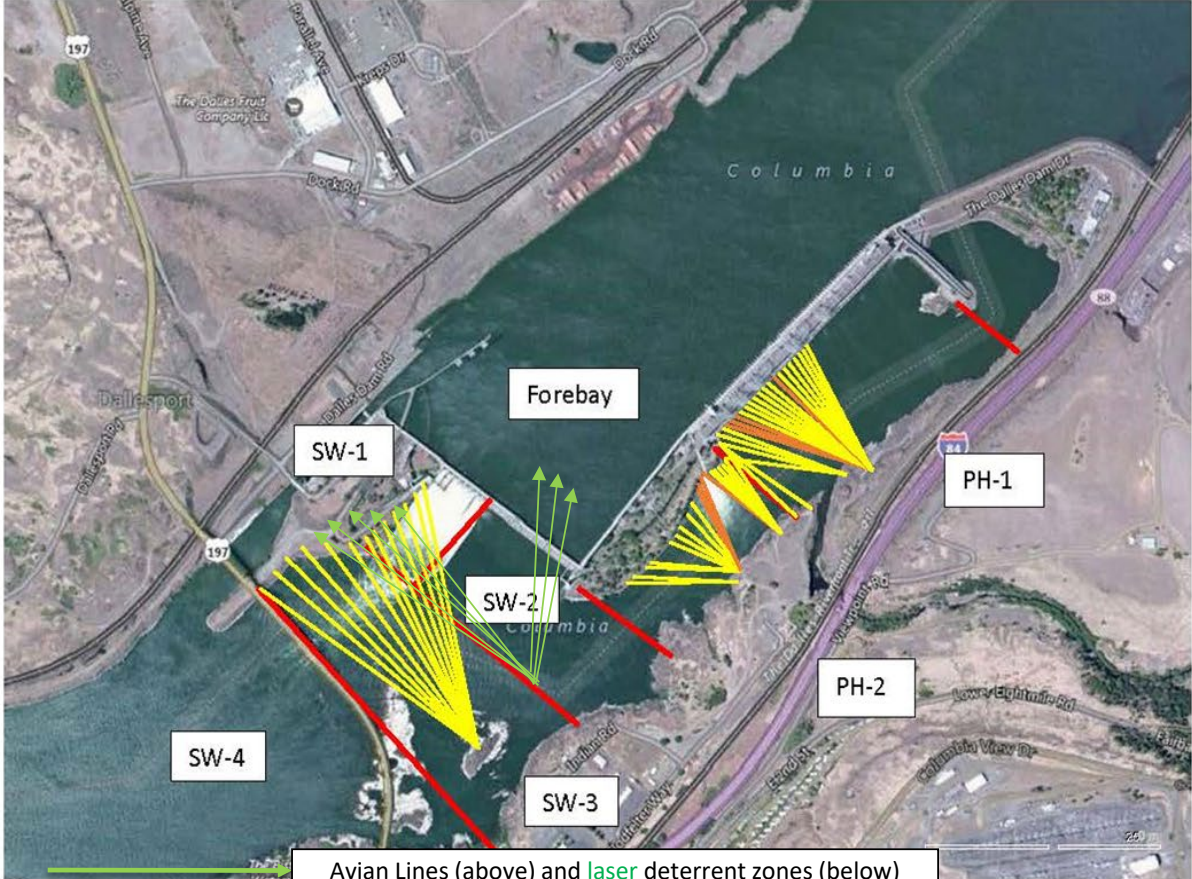
### Predators

Green laser use continues for piscivorous bird hazing testing. Refer to Avian zones tab.  
USDA hazing resumes 4/15/20  
Eagle numbers in normal range and locations. Cormorants at winter low #s and gulls very few daily, with expected ranges.  
No sea lion observations this week.

### Research/Construction/Contractors

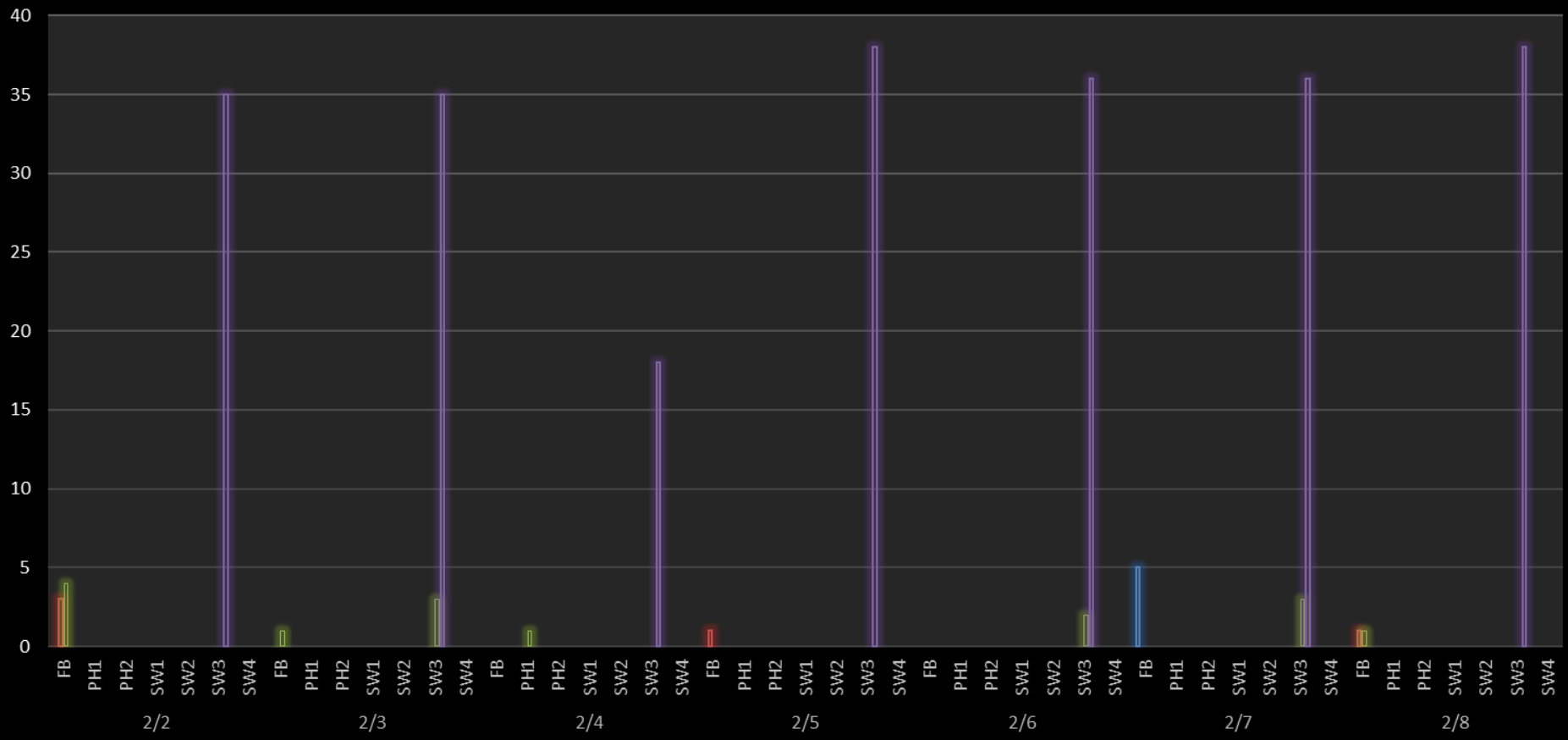
Four Peaks fish counting concluded October 31. Resumes April 1. Cleaning count stations  
AWS backup - Follow on contract in progress. Valve actuator commissioning end of Feb. AWS will be available for use by Feb 3.  
PITAGS north and east fishladder data collection at count stations continues.  
Dam angling 2019 total 2228 pikeminnow, 98 smallmouth bass and 6 walleye caught. **Bass/Walleye released due to state classification of game species.**  
Fish unit breaker replace.- Work near complete. Potential anchoring concerns being discussed. Commissioning still planned first week of Feb.  
Fish unit rehab - Phase 1A. Planning operation scenario with AWS backup water supply during construction. No funding.

Operation Project Manager The Dalles Dam



### Gull and Cormorant activity by zone

■ Sum of GULL F    
 ■ Sum of GULL NF    
 ■ Sum of DCCO F    
 ■ Sum of DCCO NF



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

— South Entrance — North Count Station — North Entrance ● Current USGS Daily Average ▲ USGS Daily Average (2007-2019)



	Secchi:		USGS: °F
2/2	5.0	Sun	40.0
2/3	5.0	Mon	39.9
2/4	5.0	Tue	39.8
2/5	5.0	Wed	40.1
2/6	5.0	Thurs	40.9
2/7	5.0	Fri	41.3
2/8	3.5	Sat	41.2
	4.8	AVG	40.5

### Feb. Temps

#### The Dalles Dam Daily Readings and Averages for

#### Temperatures, Secchi, Entrances, and Spill

SCADA INSPECTION

out of criteria

Date:	North Ladder		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
2/2	1.3	9.4	-0.7	7.9	8.8	9.5	11.7	0.6	8.6	8.6	8.3	0.3	2.4	2.4
2/3	PUD SHUT DOWN		-0.5	8.2	9.1	9.8	12.0	0.3	8.5	8.5	8.2	0.6	-1.5	2.2
2/4	PUD SHUT DOWN		-0.3	9.0	9.9	10.6	12.8	-0.4	-0.4	8.5	8.3	0.7	-0.8	2.4
2/5	North Ladder Dewatered to tailwater		1.5	0.0	10.2	10.1	13.5	3.3	-2.5	-2.5	-2.6	3.3	-2.6	-2.6
2/6	North Ladder Dewatered to tailwater		1.5	0.1	10.1	10.1	13.5	3.3	-2.5	-2.5	-2.6	3.4	-2.5	-2.5
2/7	North Ladder Dewatered to tailwater		1.5	-0.2	8.7	8.7	13.8	3.0	-1.3	-1.3	-1.3	3.0	-1.5	-1.5
	North Ladder Dewatered to tailwater		1.6	-0.3	9.2	9.2	13.7	2.8	0.2	0.2	0.2	2.8	0.0	0.0
2/8	RTS - TBD		1.2	1.4	9.2	9.2	15.4	2.8	0.2	0.2	0.2	2.8	0.0	0.0
	RTS - TBD		1.2	-1.6	8.2	8.3	15.8	-0.2	0.0	0.0	0.0	2.7	-0.2	-0.2
<b>AVG:</b>	<b>1.3</b>	<b>9.4</b>	<b>0.8</b>	<b>2.7</b>	<b>9.3</b>	<b>9.5</b>	<b>13.6</b>	<b>1.7</b>	<b>2.2</b>	<b>2.1</b>	<b>2.2</b>	<b>-0.7</b>	<b>0.0</b>	

***Fishways are inspected once daily plus one SCADA inspection.***

Improved weir side plates for better lamprey passage East exit adjustable weirs

