

# The Dalles Dam Fishway Status Report

11/28/21

Inspection Period: 11/21 - 11/27/2021

## THE DALLES DAM



US Army Corps  
of Engineers  
Portland District

The Dalles Project-Fisheries  
P.O. Box 564  
The Dalles, OR 97058-9998  
Phone: 541-506-3800

<b>The Dalles Dam</b>	<b>Inspections OOC</b>	<b>Criteria Limit</b>	<b>Total Number of Inspections:</b> 13		<b>Temperature:</b> 59.4 °F
			<b>Comments:</b> Fishways in full operation		<b>Weekly Ave. Secchi:</b> 5.0

### NORTH FISHWAY

Exit differential	0	≤ 0.5'	
Count station differential	0	≤ 0.3'	
Weir crest depth	0	1.0' ± 0.1'	
Entrance weir N1	0	depth (≥ 8')	Weekly average 9.7
Entrance Differential	0	1.0' - 2.0'	Weekly average 1.1
Entrance weir N2	0	Closed	
PUD Intake differential	0	≤ 0.5'	Significant aquatic weeds accumulating. Rake turned over to PUD operations.

### EAST FISHWAY

Exit differential	0	≤ 0.5'	
Removable weirs 154-157	0	Per forebay	
Weir 158-159 differential	0	1.1' ± 0.1'	
Count station differential	0	≤ 0.3'	
153 Weir crest depth	0	1.0' ± 0.1'	
Junction pool weir JP6	0	> 7.0'	
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	east 1.66fps, west 1.46fps 11/4/21
Transportation channel velocity	0	1.5 - 4 fps	east 2.46fps, west 4.66fps 11/4/21
North channel velocity	0	1.5 - 4 fps	2.62 fps 11/15/21
South channel velocity	0	1.5 - 4 fps	4.39 fps 11/22/21
West entrance differential	0	1.0' - 2.0'	Old SCADA Week ave. 1.5
Entrance weir W1	0	depth (≥ 8')	Week ave. 9.9
Entrance weir W2	0	depth (≥ 8')	Week ave. 9.9
Entrance weir W3	0	No criteria	Closed
South entrance differential	0	1.0' - 2.0'	Week ave. 1.5
Entrance weir S1	0	depth (≥ 8')	Week ave. 8.8
Entrance weir S2	0	depth (≥ 8')	Week ave. 8.7

### JUVENILE PASSAGE

Sluiceway operation	0	Units 1,8, 18	Gates over MU1/1-2-3, moved to MU4, MU8/1-3, MU18-2 open
Turbine trashrack drawdown	0	<1.5', biwkly	10/20/21, all gatewells in criteria.
Spill volume/pattern	0	1 to 8	Spill closed 9/1/21
Turbine Unit Priority	0	per FPP	Mus 1-3 OOS due to crane rail replacement work.
Gatewells	0	Weekly	No mortality 11/17/2021.

## OTHER ISSUES:

### **Current Unit Outages**

- SS01 OOS 0001 11/17/2021 – 1700 11/24/2021 for Annual
- MU3 OOS 0630 9/20/2021 – 1700 11/24/2021 for Crane Rail Replacement
- MU2 OOS 0630 9/20/2021 – 1700 11/24/2021 for Crane Rail Replacement
- MU1 OOS 0630 9/20/2021 – 1700 11/24/2021 for Crane Rail Replacement
- T10 (MU19 & 20) FOOS through 10/27/2022 due to acetylene levels
- MU12 OOS 0001 4/12/2021 – 1700 10/27/2022 for Annual & Cooler Upgrades
- MU19 OOS 0630 6/27/2021 – 1700 10/27/2022 for Top Plate Cover Upgrade

### **Maintenance**

Permanent oil boom removed from east exit for repairs. Better attachment brackets to be designed and installed.

9 of 10 dewater pumps functional and ready for dewatering Dec 6.

Fishway automation replacement work continues from last year. Approximately half complete.

Calibrations: All openings in criteria. One east and south entrance gates E-3 and S-2 out of calibration but stable and unable to adjust.

New mechanical velocity meter setup and used in east channels. Velocities slightly out of criteria at three locations.

Spillway assessment (MRER); Spillgates 1- 9 rehab date estimate 2034. Includes replacement of spillbay 9 trunnion pin repair

### **Predators**

Cormorants fishing entrances, PH1 and in SW2 & 3, Mergansers also a regular as expected during fall migration.

Western, california and ringbill gulls foraging at nav lock and in PH2,

### **Research/Construction/Contractors**

#### [TD-USGS °F](#)

AWS intake trashrack/trash rake- No funding FY22.

Fish Accords Lamprey Passage plan for The Dalles ongoing at 30% DDR junction pool

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

Fish unit rehab - Phase 1A on hold. Date to be determined. Planning operation with AWS backup water supply during construction.

Northern Pikeminnow Management Program season concluded w/1384 native pikeminnow removed YTD

PUD removing debris from location where a new juvenile sampling facility will be constructed prior to upcoming fish season 2021/2022

Crane rail replacement underway on intake deck units 1-4. Sluiceways unit 1 moved to unit 4 open.

### **Fishway Operations**

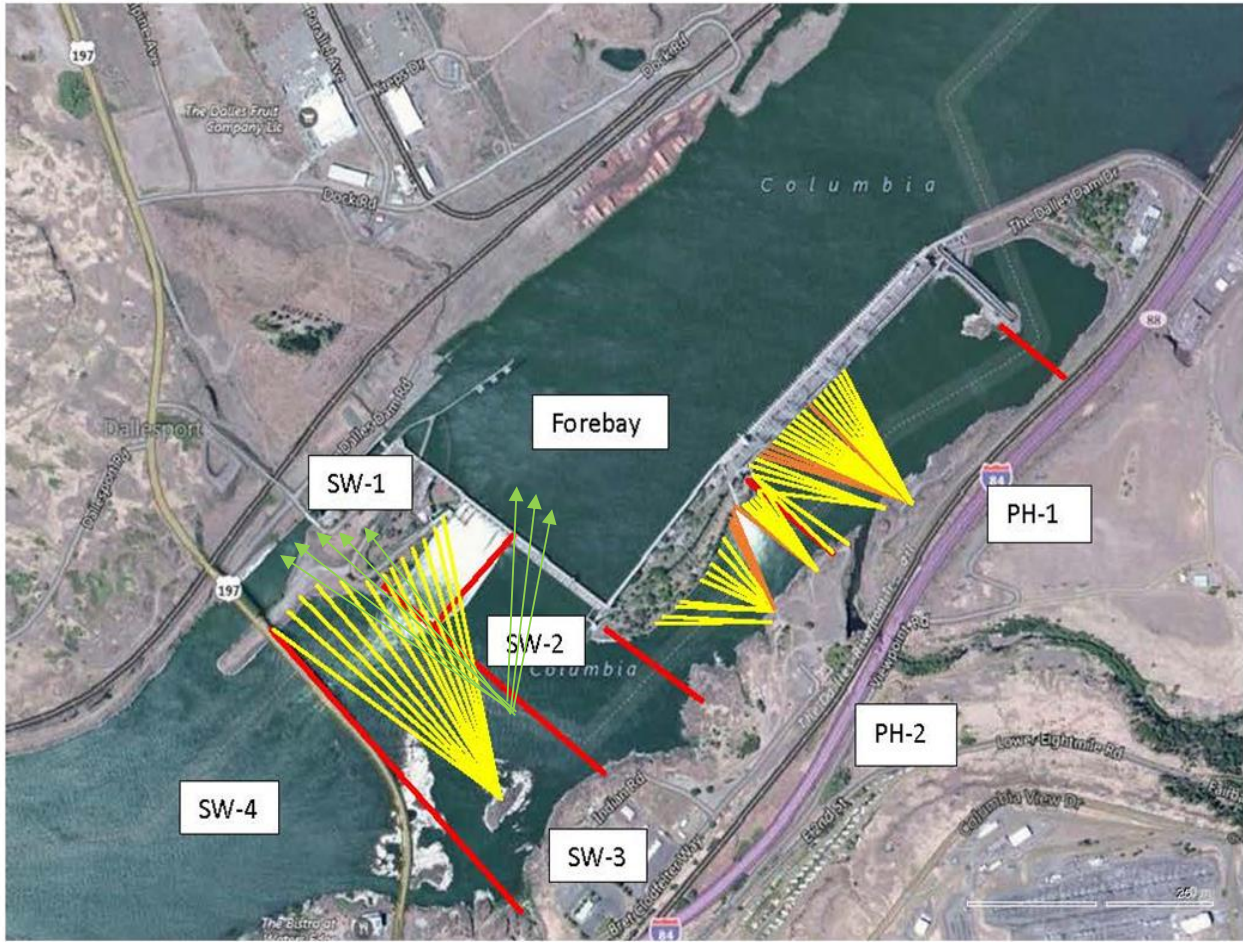
Ice Trash sluiceway opened 24/7. MU4/1-2-3, MU 8/1-2, MU18/2 Sluice openings move to unit 4 due to concrete-crane rail removal

East and north fish ladders in full operation per Fish Passage Plan.

Approved by: Ron Twiner, Operation Project Manager, The Dalles Dam



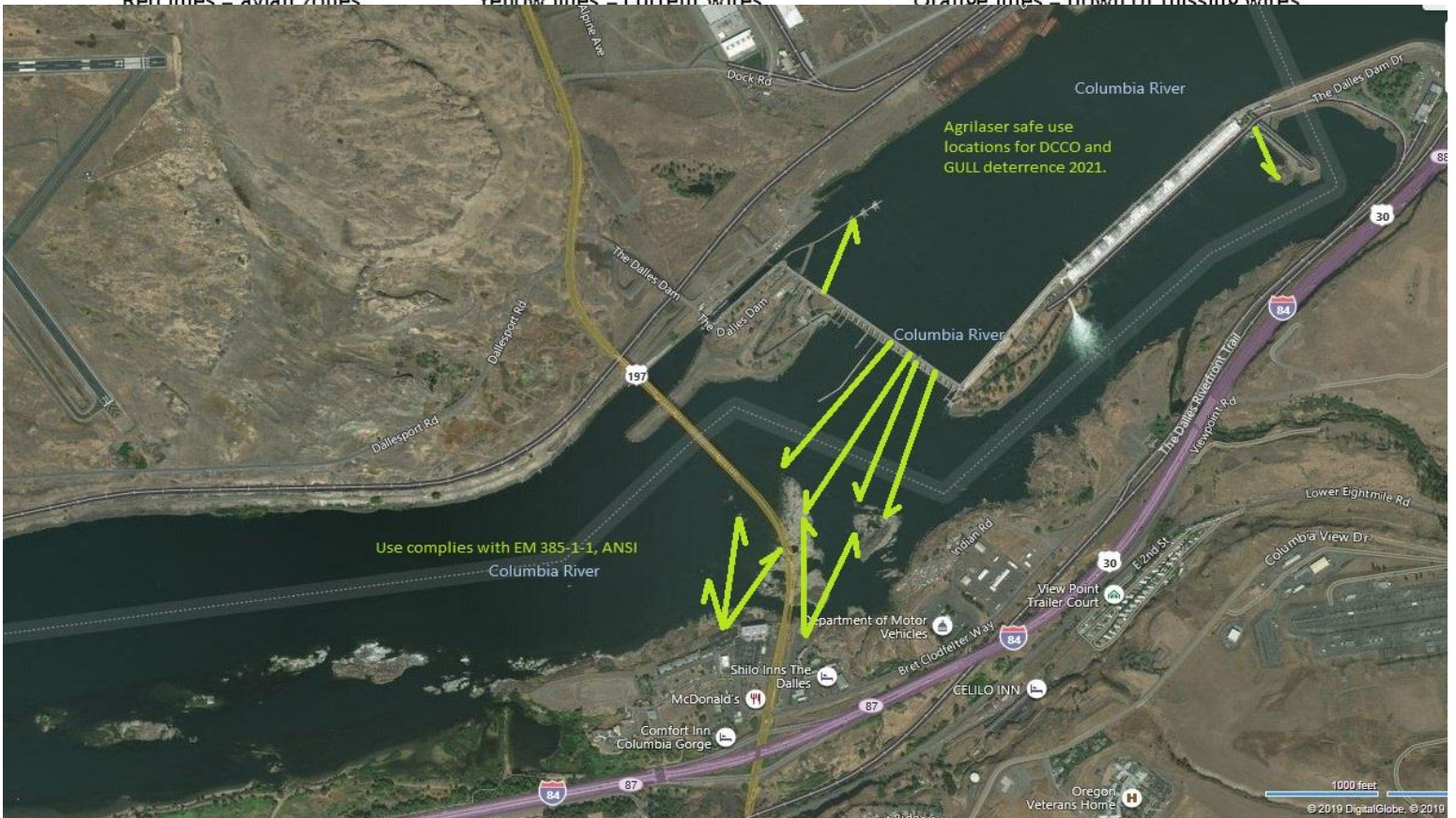
New Avian Lines and laser deterrent zones



Red lines = avian zones

Yellow lines = current wires

Orange lines = down or missing wires



Use complies with EM 385-1-1, ANSI

Agrilaser safe use locations for DCCO and GULL deterrence 2021.

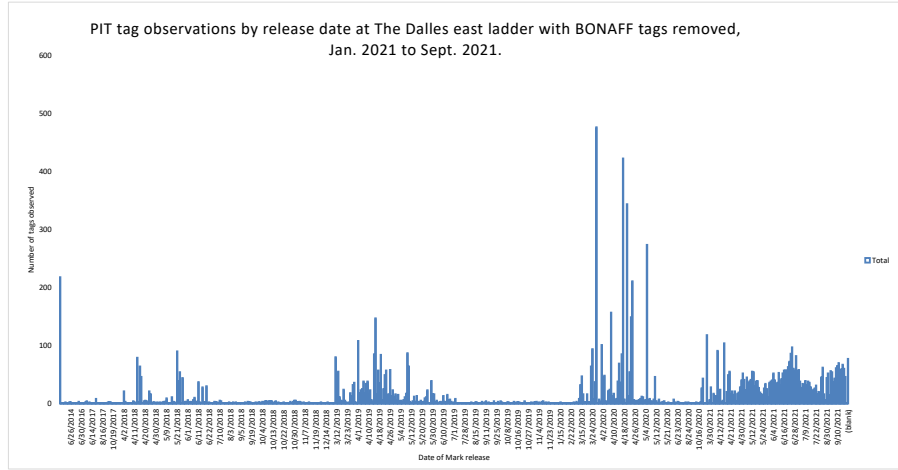
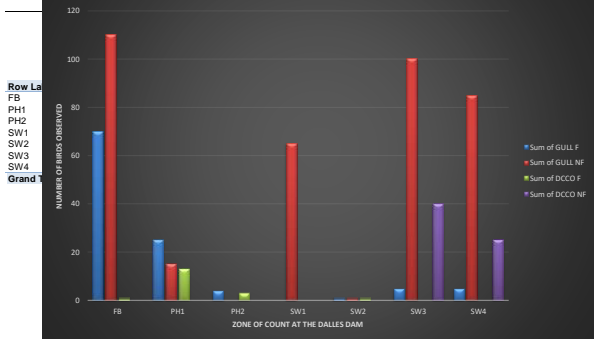
2021 Piscivorous Bird Counts

F=foraging, NF=non-foraging

Date	Observer	Time	ZONE	GULL F	GULL NF	DCCO F	DCCO NF	TERN F	TERN NF	Grebe F	Grebe NF	AWPE F	AWPE NF	OtherF	OtherNF	Total	comments		
11/22	JED	AM	FB	45	65	1	0	0	0	0	0	0	0	0	0	0	111		
			PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
			PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
			SW1	0	35	0	0	0	0	0	0	0	0	0	0	0	0	35	
			SW2	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2	
			SW3	3	65	0	25	0	0	0	0	0	0	0	0	0	0	93	
SW4	5	85	0	25	0	0	0	0	0	0	0	0	0	0	115				
11/23	JED	AM	FB	25	45	0	0	0	0	0	0	0	0	0	0	0	70		
			PH1	25	15	13	0	0	0	0	0	0	0	0	65	0	118		
			PH2	4	0	3	0	0	0	0	0	0	0	0	0	0	7		
			SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	
																	1		
																		52	
																		0	

back and approaches, PH2 and PH1

Several observations of Avian predators at TDA 11/22-11/23/2021



Most of those PIT tag marked in 2021 will be chinook minijacks. Some (n17) 2020 tags were recovered in the east ladder 180 bend last year found during dewater, possibly avian predation.

Secchi:		USGS°F
5.0	Sun	59.6
5.0	Mon	59.6
5.0	Tue	59.5
5.0	Wed	59.4
5.0	Thurs	59.2
5.0	Fri	58.9
5.0	Sat	58.4
5.0	median	59.4

11/21  
11/22  
11/23  
11/24  
11/25  
11/26  
11/27

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

E1 and W3 no criteria  
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
11/21	1.0	9.8	1.7	5.7	10.8	11.9	8.7	1.4	9.9	9.9	-3.7	1.6	8.0	7.9
	1.1	9.8						1.5	10.0	9.9	2.7	1.5	8.9	8.8
11/22	1.2	9.9	1.3	7.8	11.6	12.8	10.8	1.5	10.0	10.0	-2.0	1.5	9.5	9.4
	1.3	9.8	1.3					1.5	10.0	10.0	-1.8	1.4	9.8	9.8
11/23														
	1.2	9.6	1.5	6.7	11.0	12.2	9.7	1.4	10.0	10.0	-2.9	1.5	9.0	8.9
11/24	1.1	9.8	No data due to power outage, gate operation normal.					1.4	9.9	9.9	0.6	1.5	8.9	8.8
	1.2	9.7						1.4	10.0	10.0	0.1	1.5	8.8	8.8
11/25	1.1	9.7	1.6	7.0	11.0	11.2	10.0	1.5	9.9	9.9	-0.1	1.5	8.8	8.7
	1.0	9.5	1.7	6.9	10.9	11.1	9.8	1.4	10.0	10.0	0.9	1.5	8.7	8.6
11/26	1.0	9.7	1.6	6.3	10.9	11.2	9.3	1.5	9.6	9.6	-0.8	1.5	8.3	8.3
	1.2	9.5	1.6	6.3	10.9	11.1	9.3	1.5	9.8	9.8	-0.7	1.5	8.3	8.3
11/27	1.1	9.7	1.4	6.5	11.3	11.7	9.5	1.5	9.9	9.9	-0.7	1.5	8.4	8.4
	1.0	9.9	1.3	6.6	11.4	11.7	9.6	1.4	9.8	9.8	-0.8	1.5	8.5	8.5
<b>AVG:</b>	<b>1.1</b>	<b>9.7</b>	<b>1.5</b>	<b>6.6</b>	<b>11.1</b>	<b>11.7</b>	<b>9.6</b>	<b>1.5</b>	<b>9.9</b>	<b>9.9</b>	<b>-0.7</b>	<b>1.5</b>	<b>8.8</b>	<b>8.7</b>

*Fishways are inspected twice daily. Overnight trend monitored via Old SCADA operating at west entrance.*



Western gulls fishing

