

The Dalles Dam Fishway Status Report

5/1/22

Inspection Period 4/24-4/30 2022

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: 14		Temperature: 49.1 °F
			Comments: W155 failure RCC restricted FB		Weekly Ave. Secchi: 4.8

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')		1.3	
Entrance Differential	0	1.0' - 2.0'		10.3	
N2	0	Closed			
PUD Intake differential	0	≤ 0.5'			

EAST FISHWAY

Exit differential	0	≤ 0.5'			
Removable weirs 154-157	0	Per forebay	Note; 155 weir hoist failed. Forebay restriction applied.		
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'	Weekly average	11.1	
East entrance differential	0	1.0' - 2.0'	Weekly average	1.5	
Entrance weir E1	0	No criteria	Weekly average	3.2	
Entrance weir E2	0	depth (≥ 8')	Weekly average	11.5	
Entrance weir E3	0	depth (≥ 8')	Weekly average	11.5	
Collection channel velocity	0	1.5 - 4 fps	at 1.61-east 2.69 fps 4/16		
Transportation channel velocity	0	1.5 - 4 fps	3.7 fps 4/23		
North channel velocity	0	1.5 - 4 fps	2.69 fps 4/25		
South channel velocity	1	1.5 - 4 fps	5.14 fps 4/23		
West entrance differential	0	1.0' - 2.0'	Weekly average	1.4	
Entrance weir W1	0	depth (≥ 8')	Weekly average	9.0	
Entrance weir W2	2	depth (≥ 8')	Weekly average	9.1	Opening less than 8' overnight due to AWS operation.
Entrance weir W3	2	No criteria	Weekly average	-2.2	Opening less than 8' overnight due to AWS operation.
South entrance differential	0	1.0' - 2.0'	Weekly average	1.4	
Entrance weir S1	0	depth (≥ 8')	Weekly average	9.1	
Entrance weir S2	2	depth (≥ 8')	Weekly average	9.0	Opening less than 8' overnight due to AWS operation.

JUVENILE BYPASS

Sluiceway operation	0	Units 1, 8, 18	
Turbine trashrack drawdown	0	<1.5', biwkly	4/24/22 0k
Spill volume/pattern	0	1 to 8	Per FPP
Turbine Unit Priority	0	per FPP	
Gatewells	0	Weekly	4/24/22, small numbers of juv. salmonid fish observed. No mortality.

Current Unit Outages

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

MU 17 OOS 3/28/2022 0630 – 7/15/2022 1700 for 6 yr. overhaul and top plate

MU19 OOS 0630 6/27/2021 – 1700 10/27/2022 for Top Plate Cover Upgrade and blade linkage inspection

4/27-4/29 FU1 out of service for buss work. AWS in operation to supplement FU2 flow.

Maintenance

East fishladder wier 155 hoist failed. Weir in down position. Half gallon oil lost to fishway. Forebay restriction 157.5 until repaired. ETR Dec 2022.

Permanent oil boom reinstall planned for Apr28 was postponed until further notice due to new high forebay restriction.

Fishway automation replacement entrances and exits in operation. Work resumes in June, pending funding.

Calibrations on east fishway entrances, engineering working to fine tune. All in criteria.

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

Fish unit rehab Phase 1A on hold. Planning operation with AWS backup water supply during construction.

AWS intake trashrack debris management - No funding FY22.

East ladder window rear crowder brush drive not working. Maintenance notified.

Predators

~45 cormorant nesting pairs on BPA towers. Gulls and cormorants feeding in tailwater. Many gulls within avian lines due to low flows.

USDA shore hazing began 4/15. Boat to start May1.

Planning removal of bass/walleye/catfish from all dewaterings for gut sample analysis. Fish Passage Plan 2022 approved.

Research/Construction/Contractors

USGS river temperatures link [April°F](#)

4 peaks visual counting resumed April 1

Operations test results of new PSMFC switchgate/juvenile sampling facility at north ladder PUD. Results provided to FPOM.

Fish Accords Lamprey Passage plan ongoing at 60% DDR junction pool LPS. Investigating mods for entrance and exit wiers.

PTAGIS fishladder data collection at in service count station continues.

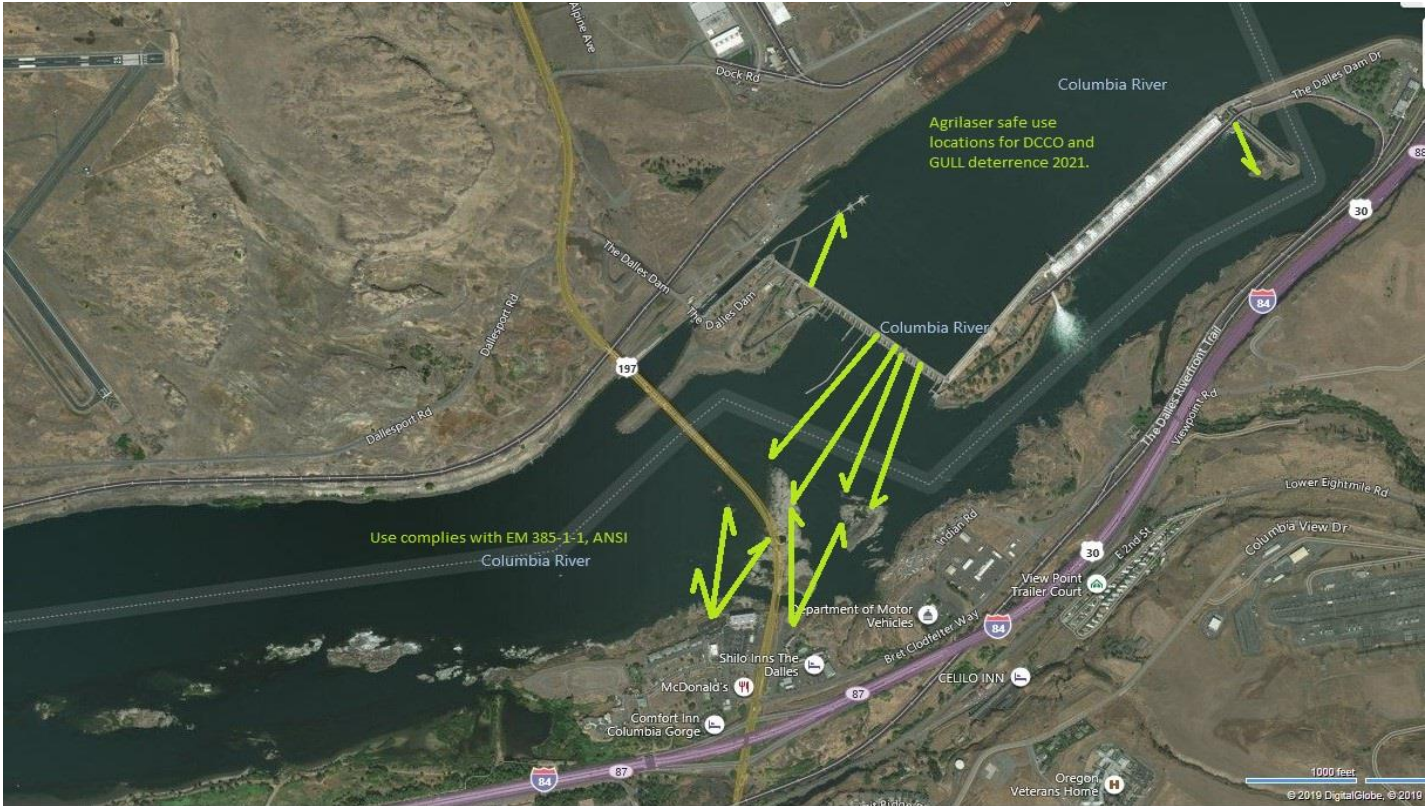
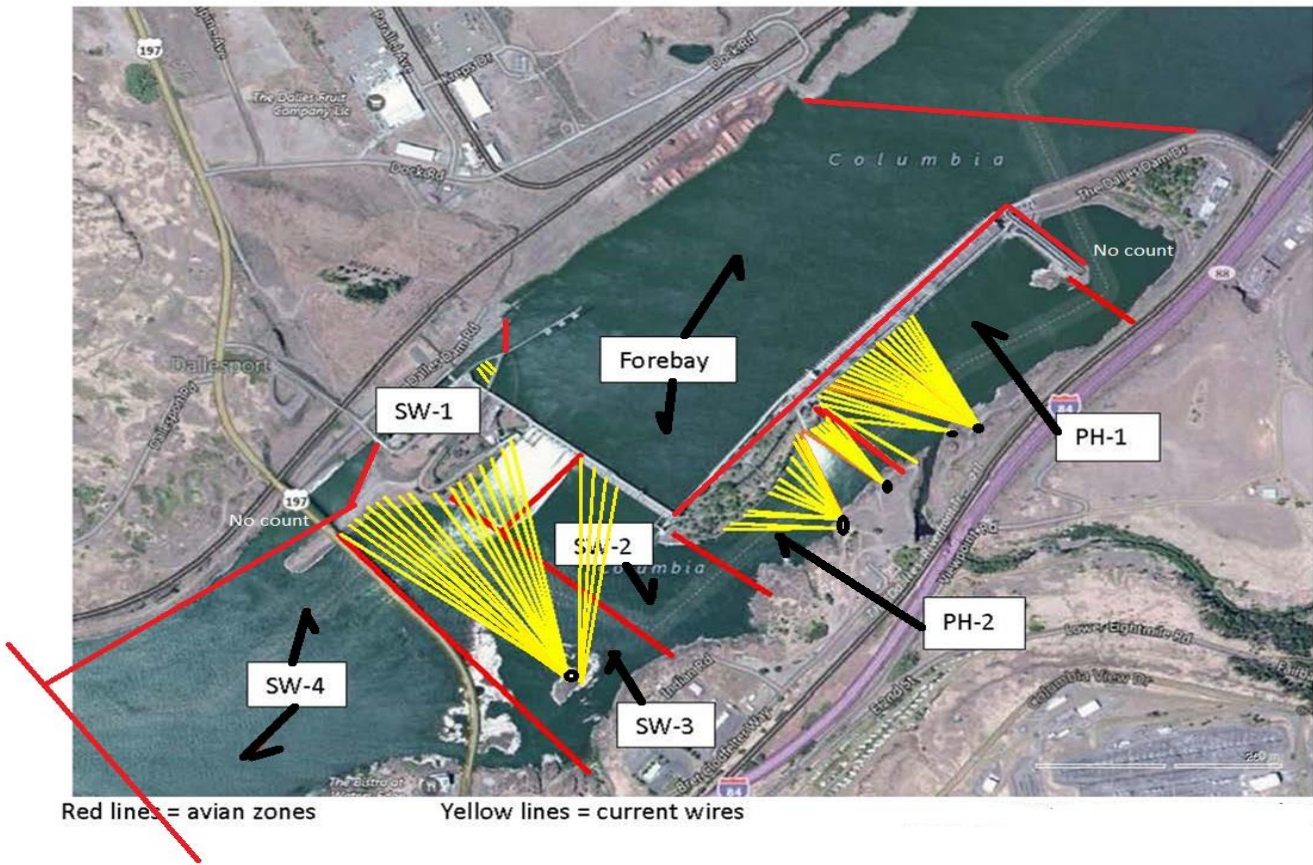
Operations

Ice Trash sluiceway endgate Open. Sluiceways open per FPP. Modifications to gate openings made due to forced unit outages.

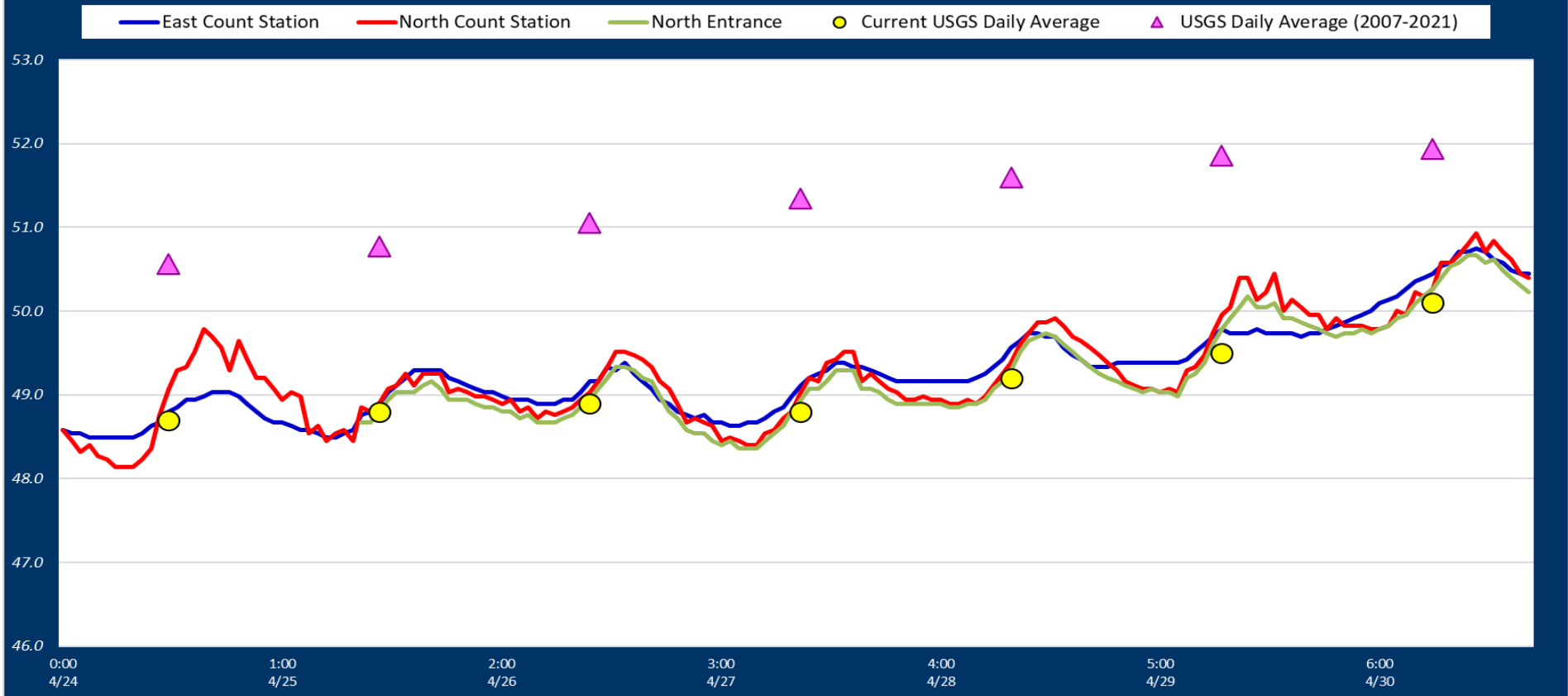
East and North fishways in full service

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

Bird Count Zones, Avian Lines and Laser Deterrent Sites



Adult Fish Ladders-River Temperatures



Secchi:		USGS°F
3.5	Sun	48.7
5.0	Mon	48.8
5.0	Tue	48.9
5.0	Wed	48.8
5.0	Thurs	49.2
5.0	Fri	49.5
5.0	Sat	50.1
4.8	AVG	49.1

Reporting week data

Date:	North Ladder		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
4/24	1.3	10.3	1.4	3.1	12.7	12.8	11.1	1.4	9.7	9.7	-2.0	1.5	9.6	9.4
	1.1	10.5	1.5	3.8	13.4	13.5	11.8	1.5	8.4	8.4	-3.3	1.5	9.7	9.4
4/25	1.2	10.4	1.6	2.8	12.0	12.1	10.7	1.6	9.0	9.0	-2.5	1.3	10.0	9.8
	1.2	10.2	1.5	3.1	12.5	12.6	11.1	1.4	9.5	9.5	-2.0	1.3	10.0	9.8
4/26	1.3	10.3	1.5	2.9	12.4	12.6	10.9	1.6	9.3	9.4	-2.4	1.4	9.7	9.5
	1.2	10.4	1.7	2.7	10.0	10.0	10.7	1.4	8.0	8.0	-2.6	1.4	8.0	7.9
4/27	1.3	10.3	1.4	3.3	10.6	10.6	11.3	1.3	8.2	8.3	-2.0	1.4	7.8	7.9
	1.2	10.3	1.6	3.0	9.6	10.3	11.0	1.4	8.2	8.3	-2.3	1.4	8.0	7.9
4/28	1.4	10.3	1.5	3.5	9.8	11.0	11.2	1.4	8.3	8.4	-2.2	1.4	7.9	7.9
	1.4	10.2	1.6	3.6	9.5	10.7	11.3	1.3	7.9	8.0	-1.9	1.0	7.7	7.7
4/29	1.3	10.4	1.5	3.4	12.1	12.5	11.1	1.5	9.7	9.9	-2.2	1.4	9.8	9.7
	1.3	10.3	1.6	3.3	12.1	12.4	11.0	1.4	9.7	9.9	-2.2	1.5	9.5	9.3
4/30	1.5	10.0	1.3	3.8	12.6	13.0	11.5	1.3	10.2	10.4	-1.7	1.4	10.0	9.9
	1.3	10.2	1.5	3.3	12.1	12.4	11.0	1.4	9.8	9.9	-2.2	1.3	10.0	9.8
AVG:	1.3	10.3	1.5	3.2	11.5	11.9	11.1	1.4	9.0	9.1	-2.2	1.4	9.1	9.0

Fishways are inspected twice daily.

found out of criteria



Weir 155 damage

