

The Dalles Dam Fishway Status Report

2/11/2018

Inspection Period: 02/04/2018-02/10/2018

THE DALLES DAM



The Dalles Project-Fisheries
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The Dalles Dam	Inspections Out of Criteria	Criteria Limit	Total Number of Inspections:	Temperature:
			Comments	41.2 °F
				Secchi: 3.8 feet
NORTH FISHWAY Out of service Jan 16 - Jan 30				
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'	1.3	
Entrance weir N1	0	depth (≥ 8')	10.2	
Entrance weir N2	0	Closed		
PUD Intake differential	0	≤ 0.5'		
EAST FISHWAY Out of service Dec1 - Feb28				
Exit differential	0	≤ 0.5'		
Removable weirs 154-157	0	Per forebay	Gearbox rehab start on 155 and 156	
Weir 158-159 differential	0	1.0' ± 0.1'	Gearbox rehab start on 158	
Count station differential	0	≤ 0.3'		
Weir crest depth	0	1.0' ± 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		
South channel velocity	0	1.5 - 4 fps		
West entrance differential	0	1.0' - 2.0'		
Entrance weir W1	0	depth (≥ 8')	Weir removed for caps and rehab	
Entrance weir W2	0	depth (≥ 8')	Weir removed for caps and rehab	
Entrance weir W3	0	No criteria	Weir removed for caps and rehab	
South entrance differential	0	1.0' - 2.0'		
Entrance weir S1	0	depth (≥ 8')	Weir removed for caps and rehab	
Entrance weir S2	0	depth (≥ 8')	Weir removed for caps and rehab	
JUVENILE PASSAGE				
Sluiceway operation	0	Units 1, 8, 18		
Turbine trashrack drawdown	0	<1.5', wkly	range: 0.1-0.8'	
Spill volume/pattern	0			
Turbine Unit Priority	0	per FPP	MU 13-16 oos 13 RTS 12/20	
Turbine 1% Efficiency	0	per FPP		

OTHER ISSUES:

Birds and Sea lions:

Sea lion spotted in front of east entrance. Eagles numbers dropping precipitously
Gull numbers <20 near dam. Gull seen in the hundreds near The Dalles Marina. ~80 Cormorant resting in SW3

Operations

Sluiceway closed.
East fishway out of service through Feb28
North fishway return to service Jan 16

Current Outages;

T8 (MU15 & MU16) out for transformer failure. Transformer replacement 6/28/18.
MU17 and MU18 out for overhaul. Return 4/26/18.
Fish unit 1 and 2 out 12/1/17 for annual fishway outage. East fishladder dewatered 12/1/17.

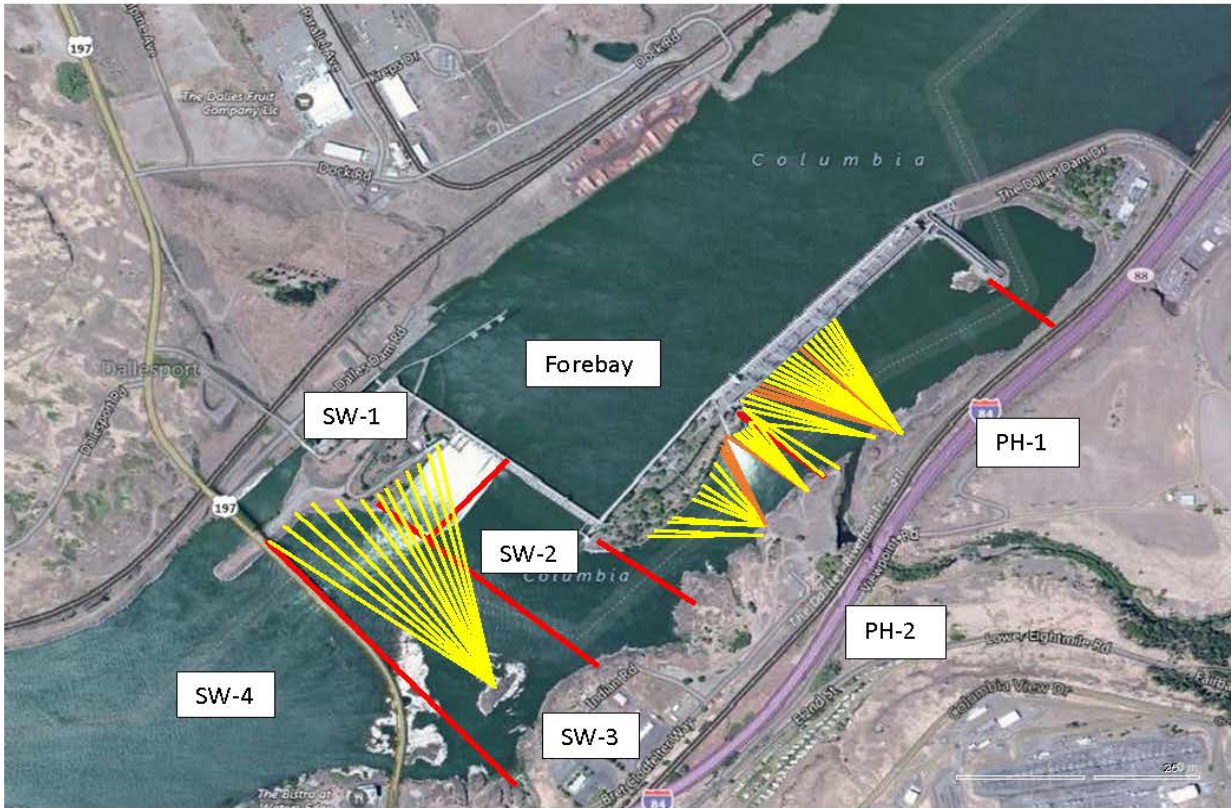
Maintenance;

East exit weir electrical panel FCQ7 partially installed. Final design drawings near complete. Installation to continue in Feb.
West, south and north entrance weirs removed and lamprey weir caps install underway.
East exit oil boom installation by AWS contract reviewed. Estimate too high. Determining alternative plan.
Fish lock upper and lower bulkhead replacement delayed due to budget.
East exit 155, 156, 158 weir gearboxes removed for rehab.
Work starting on a collection diffuser valve rehab for scoping purposes on remaining valves
Collection channel removal of stuck dewater pump end Jan.
North ladder diffuser valves preventative maintenance underway. One broke valve being repaired.
Long term repair items; 154 -157 rehab/weir wheel replace, diffuser valve overhaul (rehab and decommission).
Fish related /non-fish funded items; Spillway assessment, spillway crane replace and spillgate 9. All awaiting funding.
All spillway items on Critical Infrastructure. Spillgate 9 on large cap list, projected for 2022. Charter in place for comprehensive spillway assessment.

Research/Construction/Contractors:

Fish Counters - Normandeau video review counting through the winter.
Pikeminnow dam angling - Done for season with a total catch at 1776. Highest invasive walleye by-catches do date being released. Concern brought to FPOM.
AWS construction - Construction progress continues. Commissioning testing Mar 31.
Lamprey minor mods - Rounded entrance weir caps on sight. Working on attaching to west weirs. South and north to follow.
Railroad track removal - Tailrace deck rail removal approx. half completed.
Fish unit breaker replace.- Work in progress. Completion Feb18, 2018. Two weeks commission testing required.
Fish unit rehab - Phase 1A report Jan 2018. Award 2020. Completion 2022.
Transformer replacement - Install start May 2018.

Approved by: Ron Twiner
Operation Project Manager The Dalles Dam



Red lines = avian zones

Yellow lines = current wires

Orange lines = down or missing wires

The Dalles North

Date	All Chinook	Adult Chinook	Jack Chinook	All Steelhead	Clipped Steelhead	Unclipped Steelhead	All Coho	Adult Coho	Jack Coho	Sockeye	Chum	Pink	Lamprey
2/11	0	0	0	2	2	0	0	0	0	0	0	0	0
2/12	1	1	0	1	1	0	0	0	0	0	0	0	0
2/13	2	2	0	1	0	1	0	0	0	0	0	0	0
2/14	0	0	0	1	0	1	0	0	0	0	0	0	0
2/15	0	0	0	3	-1	4	0	0	0	0	0	0	0
2/16	0	0	0	1	1	0	0	0	0	0	0	0	0
2/17	0	0	0	0	0	0	0	0	0	0	0	0	0
total	3	3	0	9	3	6	0	0	0	0	0	0	0

[Ladder Counts](#)

The Dalles Dam North Fish Ladder/River Temperatures

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



USGS: Lower Columbia River Temperature Report for February 2018

	Secchi:		Temperatures
2/11	4.0	Sun	41.9
2/12		Mon	41.6
2/13	3.5	Tue	41.4
2/14	3.5	Wed	41.2
2/15		Thurs	41.1
2/16	4.0	Fri	40.8
2/17	4.0	Sat	40.7
	3.8	AVG	41.2

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

= Out of criteria

Date:	North Ladder		East Ladder										
	North Entrance		East Entrance					West Entrance			South Entrance		
	Differential	N1 Depth	Differential	E1 Depth	E2 Depth	E3 Depth	JP 6	Differential	W1 Depth	W2 Depth	W3 Depth	Differential	S1 Depth
2/11	1.3	10.8	<i>East Ladder dewatered for winter</i>										
2/12													
2/13	1.3	9.6											
2/14	1.3	9.5											
2/15	1.4	10.2											
2/16	1.3	10.7											
2/17	1.3	10.7											
AVG:	1.3	10.2											

Fishways are inspected twice daily plus one SCADA inspection.