

The Dalles Dam Fishway Status Report

2/11/2017

Inspection Period: 02/05/2017 - 02/11/2017

THE DALLES DAM



US Army Corps
of Engineers
Portland District

Fishways are inspected once daily during winter

The Dalles Dam	Inspections Out of Criteria	Criteria Limit	Total Number of Inspections: 7	Temperature: 35.8 °F
			Comments: Snow	Secchi: 5.0 feet
NORTH FISHWAY				
Exit differential	0	≤ 0.5'	1.3	
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')	9.1	
Entrance weir N2	0	Closed		
PUD Intake differential	0	≤ 0.5'		
EAST FISHWAY				
Exit differential		≤ 0.5'		
Removable weirs 154-157		Per forebay		
Weir 158-159 differential		1.0' ± 0.1'		
Count station differential		≤ 0.3'		
Weir crest depth		1.0' ± 0.1'		
Junction pool weir JP6		depth (≥ 7')		
East entrance differential		1.0' - 2.0'		
Entrance weir E1		No criteria		
Entrance weir E2		depth (≥ 8')		
Entrance weir E3		depth (≥ 8')		
Collection channel velocity		1.5 - 4 fps		
Transportation channel velocity		1.5 - 4 fps		
North channel velocity		1.5 - 4 fps		
South channel velocity		1.5 - 4 fps		
West entrance differential		1.0' - 2.0'		
Entrance weir W1		depth (≥ 8')		
Entrance weir W2		depth (≥ 8')		
Entrance weir W3		No criteria		
South entrance differential		1.0' - 2.0'		
Entrance weir S1		depth (≥ 8')		
Entrance weir S2		depth (≥ 8')		
JUVENILE PASSAGE				
Sluiceway operation	NA	Units 1, 18	Closed. Reopens Mar1 for fish passage	
Turbine trashrack drawdown	NA			
spill	NA			
Turbine 1% Efficiency	NA	per FPP	Out of fish passage season	
Turbine Unit Priority	NA	per FPP	Out of fish passage season	

***Out for winter maintenance and
AWS backup construction***

Birds/Sea lions:

No sea lions observed. All bird numbers low as shown in bird counts

Bird observation data collected once daily. Refer to Avian Zone map and bird count.

Spillway avian lines repair plan in progress. Work plan and hazing plan routed for approvals. USDA prework site tour Mar1.

Operations:

North Fishway watered up Jan24. Additional temperature monitoring probe deployed at north entrance, data shown in temperature graph

Current Outages;

T8 (MU15 & MU16) forced out due to transformer failure. Transformer replacement scheduled for spring 2018.

MU21 out for exciter failure, return Feb23

MU3 out for governor oil level failure, return Feb24

Awaiting tailrace crane completion to resume turbine maintenance schedule.

Maintenance:

North fishway entrance diffuser grating will be inspected by ROV 2/15.

Navlock intake trashrack, PUD intake trashrack and North entrance exit will be inspected via ROV on 2/15

Plans underway to install material to east count station crowder to keep lamprey out from behind crowder. FPOM informed.

New east exit weir electrical panel FCQ7 installation on hold awaiting funding.

East ladder dewatered Dec1 through Feb28 for AWS backup construction and ladder maintenance. North ladder in service.

Winter work in progress; East exit weirs 154 and 159 coupler/seal replacement (90%), ladder expansion joint repair (0%), N1 weir rehab and spare swap (50%),

Brush strip to be install bottom of east count station crowder to prevent lamprey entering behind crowder. FPOM approved.

Broke diffuser stems on 5 junction pool diffusers. Will not impede flow. These valves will be removed in future. No repair planned.

Long Term repair maintenance plans; 154 -157 rehab/weir wheel replace, collection channel diffusers decommission, repair failed diffusers.

Fish related /non-fish funded items; Spillway crane and spillgate 9, both awaiting funding.

All spillway items on Critical Infrastructure list and Unfunded Requirement list.

Research/Construction:

Unit 1 EAL environmental acceptable grease - Coordinated and approved through FPOM.

North fishladder rehab/rock wall stabilizing - Awaiting funding. Possible 2018/19.

East fishladder AWS emergency backup - Forebay diving sawcutting continues. Junction pool concrete removal continues. Excavation 7' valve room.

Jackhammering of hole approximately 30'. Forebay slot cutting via dive for peirs continues.

Railroad track removal - Mobilizing for work start this winter. Work over sluiceway next spring FPOM approved. Crane rail replacement 2021.

Tailrace crane rehab - Work resumed. Completion Feb.

Fish unit breaker replace.- Work start fall 2017. Switch over Jan 2018.

Fish unit rehab - Kickoff meeting Jan 19, 2017. Phase 1A report Jan 2018. Award 2020. Completion 2022. Investigating possible more flow for redundancy.

Transformer replacement - Developing sequence. Install start May 2018. MOC to be provided to FPOM.

N Wasco Co PUD Memo of Agreement - Reviewing final comments.

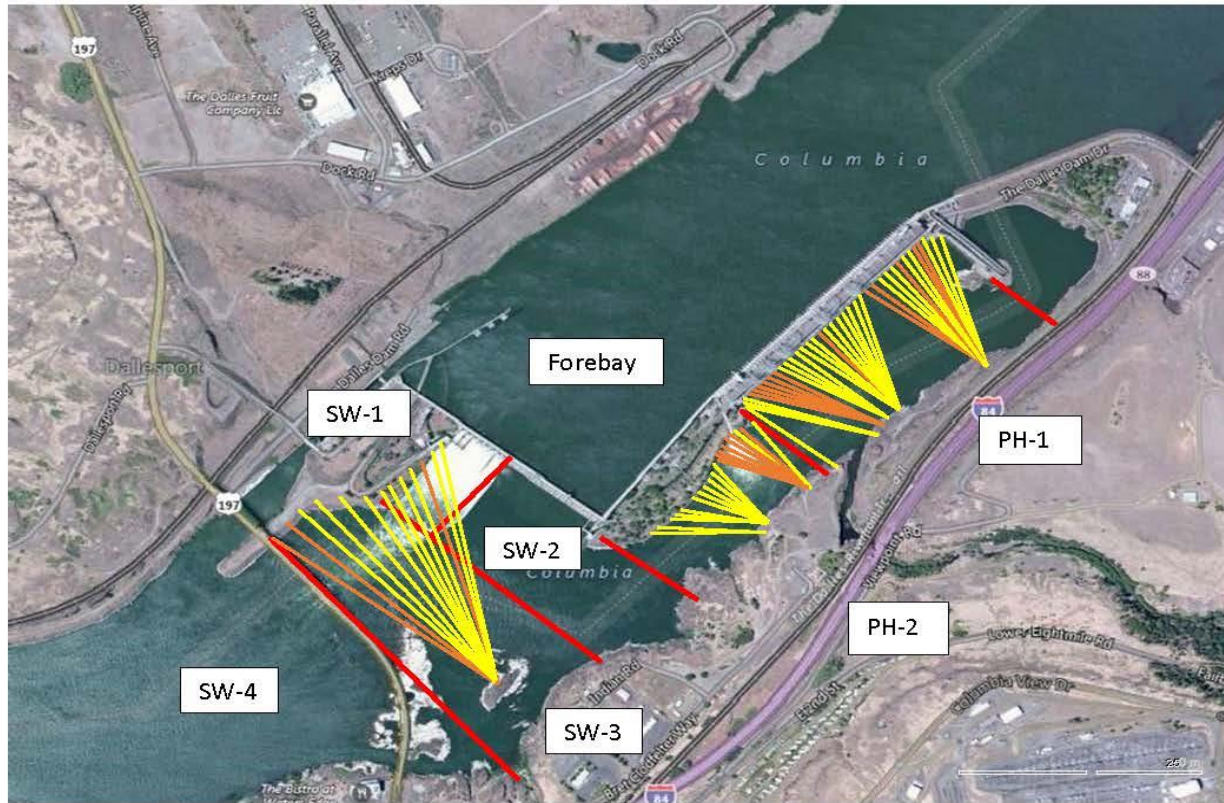
Lamprey minor mods - Tribal trap hoist improvements and rounded entrance weir caps designs underway, fab '17, install '17/'18.

Research/Contractors:

Kiewit on site for east fishladder AWS backup. Monitoring work progress. Refer to Pic tabs.

Approved by: Ron Twiner

Operation Project Manager The Dalles Dam



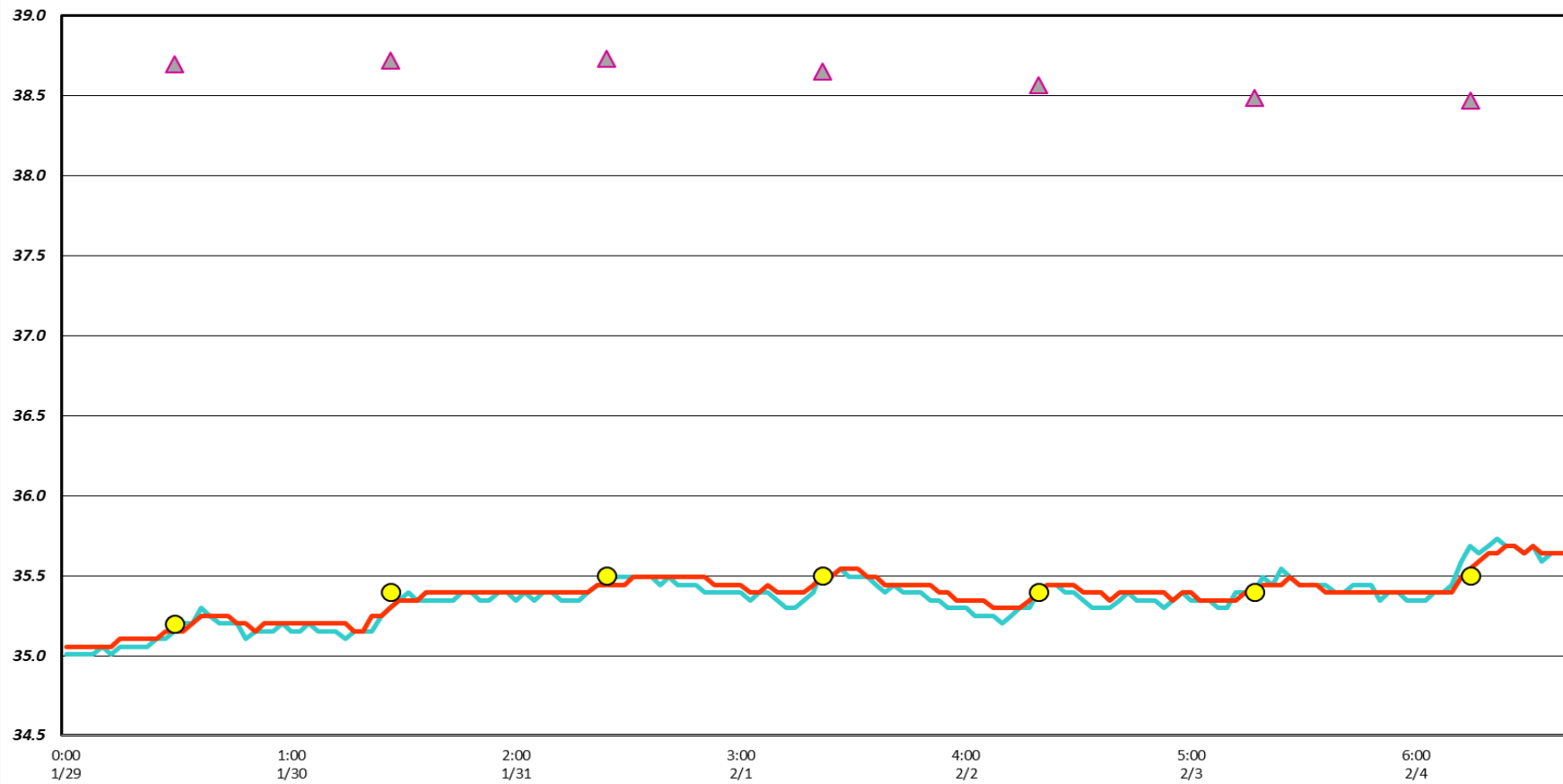
Red lines = avian zones

Yellow lines = current wires

Orange lines = down or missing wires

The Dalles River Temperatures °F

North Count Station North Entrance ▲ USGS daily tailwater average (2007-2016) ● Current USGS daily tailwater average





AWS 7' pipes half way across junction pool span.



Failed support bracket for diffuser valve (slanted one). 4 others found with same failure.