

# The Dalles Dam Fishway Status Report

1/28/2017

Inspection Period: 01/22/2017 - 01/28/2017

THE DALLES DAM



US Army Corps  
of Engineers  
Portland District

*Fishways are inspected once daily during winter*

<b>The Dalles Dam</b>	Inspections Out of Criteria	Criteria Limit	Total Number of Inspections:	7	Temperature:	35.4 °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')

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

### 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

**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.

Two of 13 spillway avian lines broke closest to bridge. Work plan and hazing plan routed for approvals.

**Operations:**

North Fishway watered up 01-24. 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

**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

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

East ladder dewatered Dec 1 through end Feb for AWS backup construction. North ladder returned to service.

Winter work in progress; East exit weirs 154 and 159 coupler/seal replacement, ladder expansion joint repair, N1 weir rehab, W1 weir repair/wheel replace.

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

*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.

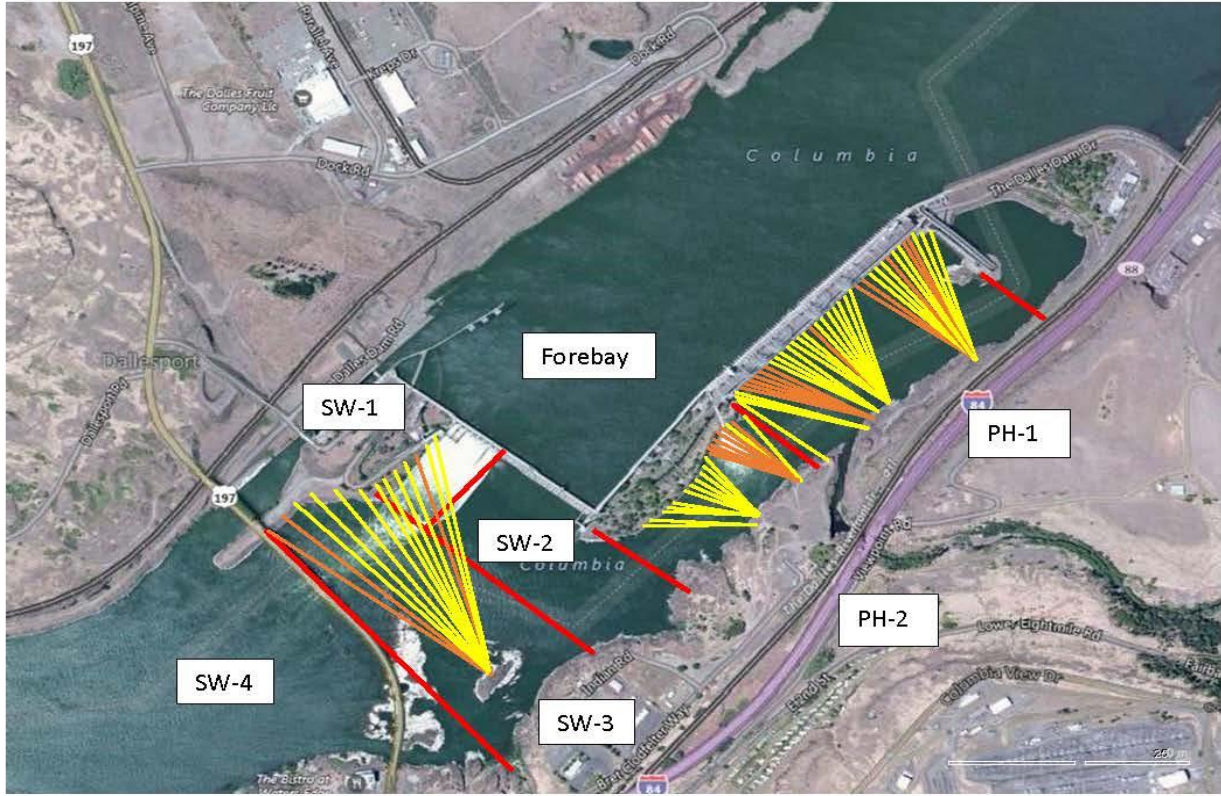
Lamprey minor mods - Tribal trap hoist improvements and rounded entrance weir caps designs underway, fab '17, install '17/'18.

**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

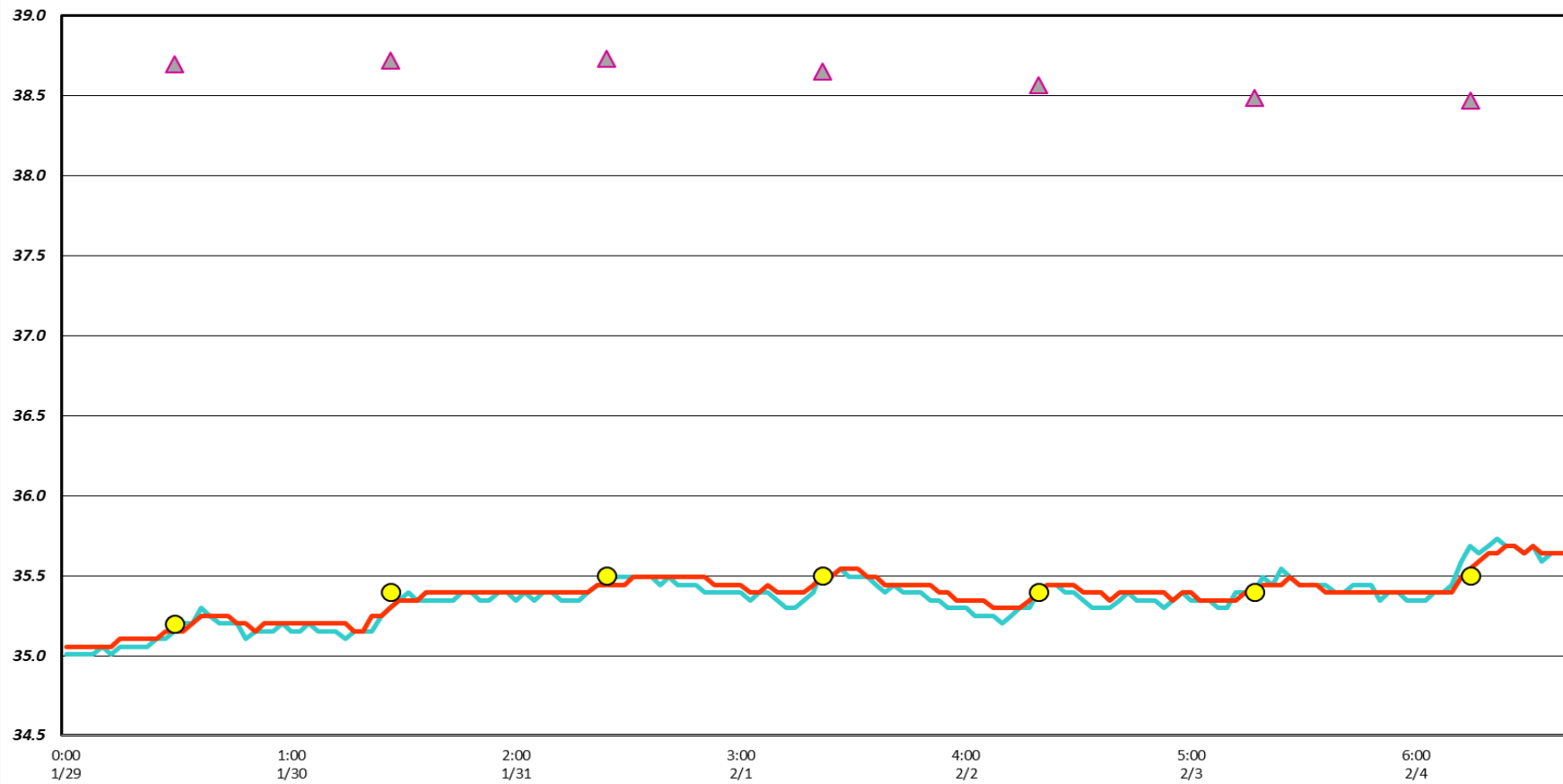
Yellow lines = current wires

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







Installation of 7' pipe over junction pool. Could use more people pushing on it.