

# The Dalles Dam Fishway Status Report

1/31/2015  
 Inspection Period: 1/25/2014 to 1/31/2015

## THE DALLES DAM



**US Army Corps  
 of Engineers**  
 Portland District

The Dalles Project-Fisheries  
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*Fishways are inspected once per day during the winter maintenance period.*

The Dalles Dam	Inspections Out of Criteria	Criteria Limit	Total Number of Inspections: 7		Temperature: 40.4 F
			Comments		Secchi: 5.0 feet
<b>NORTH FISHWAY</b>					
Exit differential	0	≤ 0.5'			
Count station differential	0	≤ 0.3'			
Weir crest depth	0	1.0' ± 0.1'			
Entrance differential	2	1.0' - 2.0'	Average 1.3	PUD was in Plunge Pool due to work on the north pump	
Entrance weir N1	0	depth (≥ 8')	Average 9.3		
Entrance weir N2	0	Closed			
PUD Intake differential	0	≤ 0.5'			
<b>EAST FISHWAY - Out of Service Dec 1, 2014 through end of Jan 2015 for winter maintenance.</b>					
Exit differential	NA	≤ 0.5'			
Removable weirs 154-157	NA	Per forebay	Auto adjusts 1' increments.		
Weir 158-159 differential	NA	1.0' ± 0.1'			
Count station differential	NA	≤ 0.3'			
Weir crest depth	NA	1.0' ± 0.1'			
Junction pool weir JP6	NA	depth (≥ 7')	Average N/A		
East entrance differential	NA	1.0' - 2.0'	Average N/A		
Entrance weir E1	NA	No criteria	Average N/A	Manually adjusted as needed.	
Entrance weir E2	NA	depth (≥ 8')	Average N/A		
Entrance weir E3	NA	depth (≥ 8')	Average N/A		
Collection channel velocity	NA	1.5 - 4 fps	Average N/A		
Transportation channel velocity	NA	1.5 - 4 fps	Average N/A	Fishway velocities concluded Dec 1 and will resume Mar 1, 2015 as per Fish Passage Plan.	
North channel velocity	NA	1.5 - 4 fps	Average N/A		
South channel velocity	NA	1.5 - 4 fps	Average N/A		
West entrance differential	NA	1.0' - 2.0'	Average N/A		
Entrance weir W1	NA	depth (≥ 8')	Average N/A		
Entrance weir W2	NA	depth (≥ 8')	Average N/A		
Entrance weir W3	NA	No criteria	Closed		
South entrance differential	NA	1.0' - 2.0'	Average N/A		
Entrance weir S1	NA	depth (≥ 8')	Average N/A		
Entrance weir S2	NA	depth (≥ 8')	Average N/A		
<b>JUVENILE PASSAGE</b>					
Sluicgate operation	0	per FPP	Sluicgates 1-1 and 18-3 are open to forebay, endgate is closed		
Turbine trashrack drawdown	NA	<1.5', wkly	Resume on March 1		
Spill volume	NA	40% ±1%	Average	On seal.	
Spill Pattern	NA	per FPP	Spillbay	On seal.	
Turbine Unit Priority.	NA	per FPP	Fish passage season resumes March1		
Turbine 1% Efficiency	NA	per FPP	Fish passage season resumes March1		

**OTHER ISSUES:****Birds/Sea lions:**

Bird observation data collected once daily. Eagle numbers appear decreasing. Refer to Avian Zone Map.

**Operations:**

Gateway drawdown and routine weir calibrations to resume March 1, 2015.

**Current Outages:**

Current Outages:

Transformer T8 (MU15 & MU16) de-rated to single unit full load ops through 2017

Unit MU13 out of service 1/20/2015 to 2/5/2015 for oil leak repairs. No oil observed in river.

**Maintenance:**

New exit weir 158 installed and calibrated. Remaining exit weirs being calibrated.

Weir guide repair work completed on W2 and test epoxy repair on E2. Repair on remaining weir guides scheduled for next year.

Three more weirs have new set of high density plastic wheels. All installed and ready for water up.

Three collection channel dewatering pumps needing rehab pulled on deck, repair underway. Two of 6 collection channel pumps remain stuck.

Permanent east fishway exit boom delivered. Contract delay resulted in missing in water work window.

FCQ7 electrical panel for east exit upgrade prep work completed. Parts to be ordered. Installation planned for next outage season.

One of 6 east entrance diffuser valves in need of repair. Valve opened for remainder of passage season. Repair planned for next outage period.

*Future repair plans*; Upgrade east exit weirs 154-157, removal/permanent closure of collection channel diffusers

Fish related but non-fish funded items; spillway evaluation, spillway crane rehab, spillgate 9 wire rope replacement, HDC update fish unit reliability assessment, planning upgrade fish unit breakers and fish unit transformer replacement.

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

**Studies:**

North fishladder rock stabilization development team site visit Feb 17. Alternatives for repair of vulnerable areas to be determined.

Investigating PIT tag 15 mile creek steelhead overshooting The Dalles. Coordination discussion underway for potential additional sluiceway operation. .

Investigating north fish count station mods for visibility improvement and use of video. Equipment purchase underway. Install Feb for testing in March.

EFL Backup; Plans/Specs 60% review underway. Includes 10' pipe from forebay to AWS. A 1400cfs flow test planned in Feb. coordination underway.

PUD 'freedom' second turbine; Field test proposal summer 2015 proposed through FPOM and SRWG. Rock plunge pool inspection included.

Spill test for more fish passage to north fishladder completed. Results showed benefit. FPOM discussion to continue for when to implement.

**Research/Contractors:**

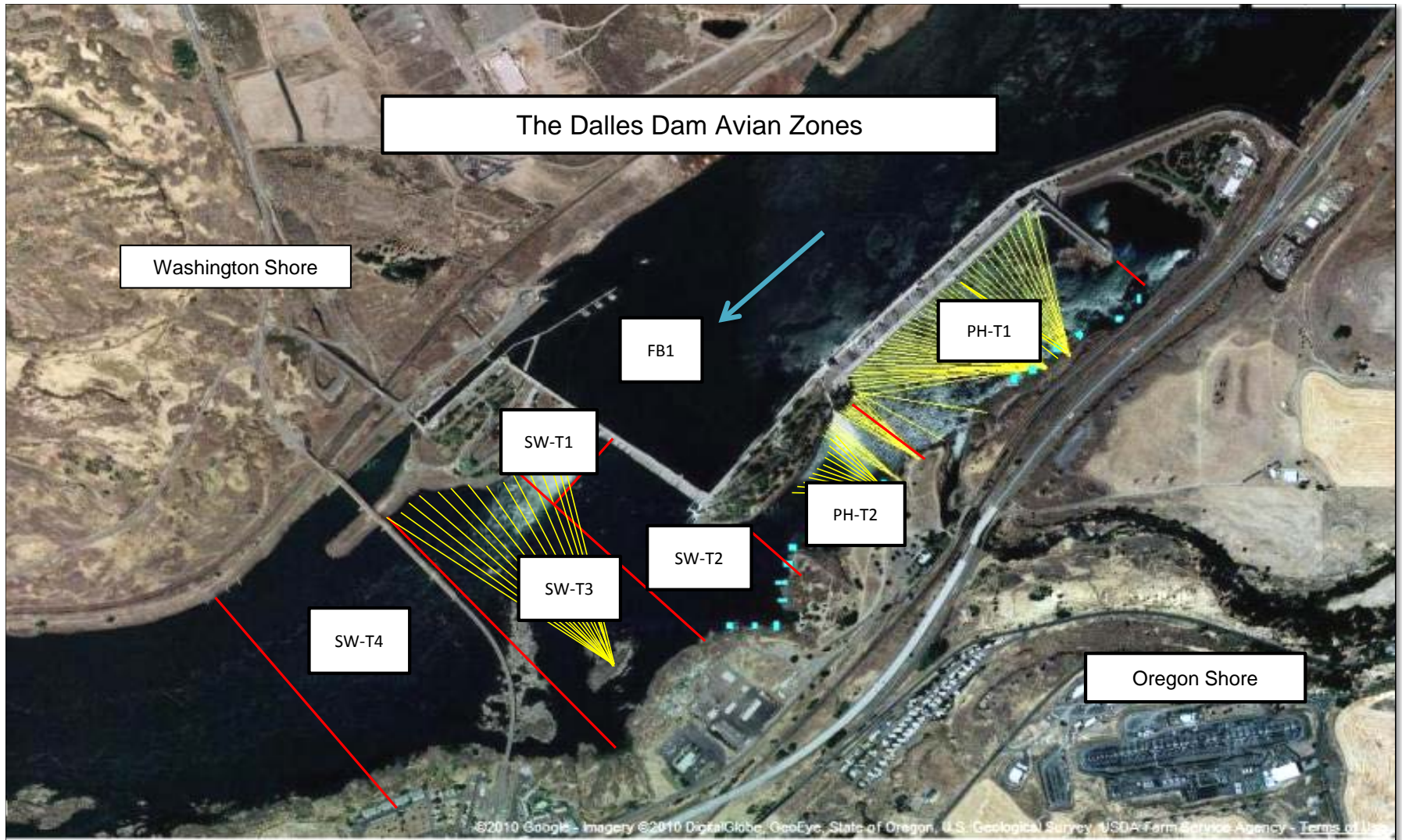
PSMFC PIT tag monitoring continues at north count station. Outage maintenance as needed for east count station antenna.

Normandeau fish counters to resume Apr1.

University of Idaho maintaining antennas. Continuing downloads of winter steelhead.

Approved by: Ron Twiner

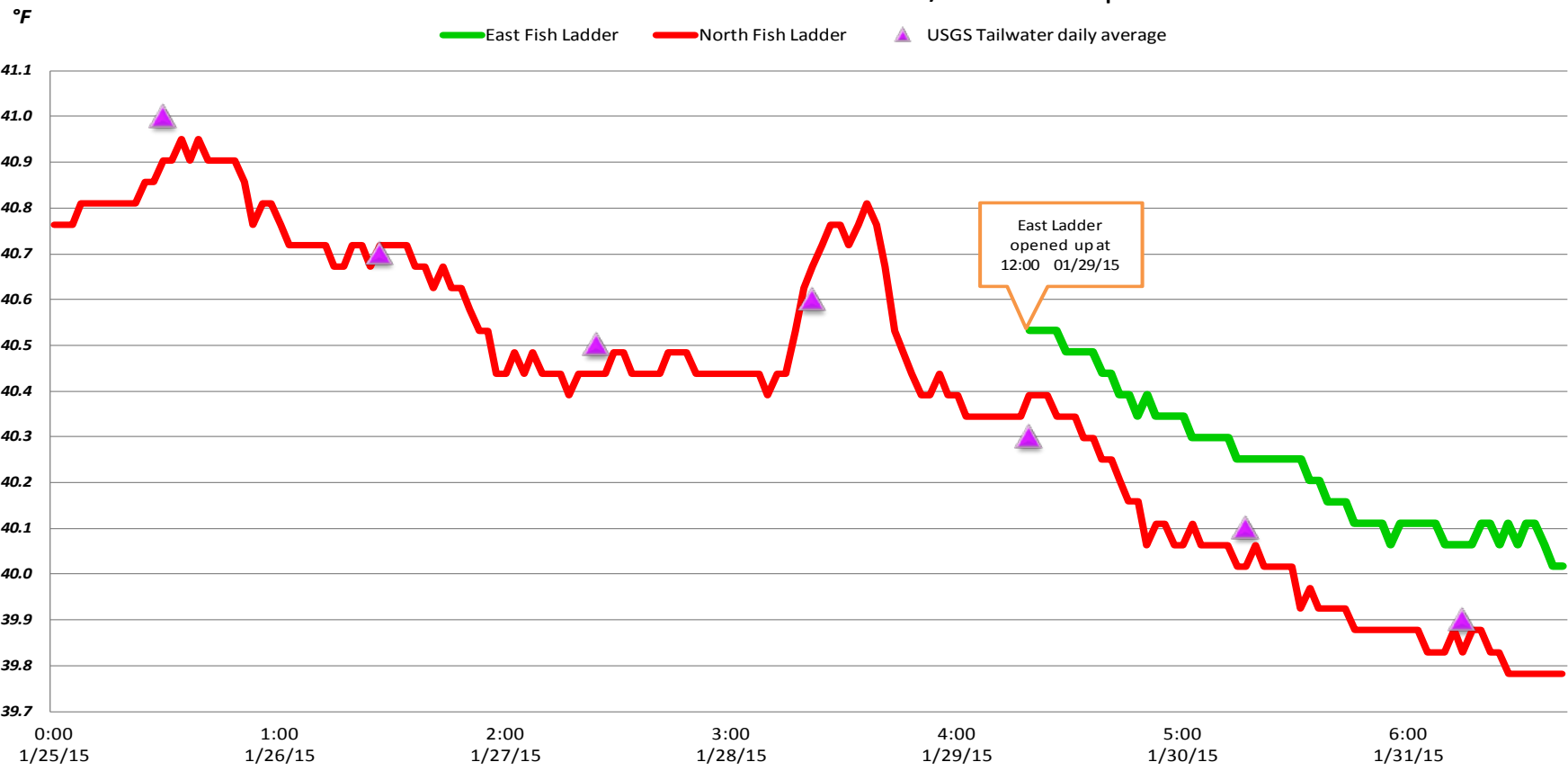
Operation Project Manager The Dalles Dam



Avian lines in yellow, zones in red, river flow in blue.



# The Dalles Dam Adult Fish Ladder River/Water Temperatures







New entrance weir E2 plastic wheel and added rub block to assure alignment.