

The Dalles Dam Fishway Status Report

Date: 11/01/2013
 Inspection Period: 11/24 to 11/30/2013

THE DALLES DAM



**US Army Corps
 of Engineers**
 Portland District

The Dalles Project-Fisheries
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Fishways are inspected twice daily thru Nov30. Additional daily monitoring done via automation system in fisheries office.

The Dalles Dam	Inspections Out of Criteria	Criteria Limit	Total Number of Inspections: 21	Temperature: 48.2 F
			Comments	Secchi: in ' 5.0
NORTH FISHWAY				
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'	Average 1.3	
Entrance weir N1	0	depth (≥ 8')	Average 9.1	
Entrance weir N2		Closed	Bulkhead installed.	
PUD Intake differential	0	≤ 0.5'		
EAST FISHWAY				
Exit differential	0	≤ 0.5'		
Removable weirs 154-157	0	Per forebay	Auto adjusts 1' increments. 156 weir off by 0.1'.	
Weir 158-159 differential	0	1.0' ± 0.1'		
Count station differential	0	≤ 0.3'	Picketed leads raked several times per week due to milfoil.	
Weir crest depth	0	1.0' ± 0.1'		
Junction pool weir JP6	0	depth (≥ 7')	Average 10.4	
East entrance differential	0	1.0' - 2.0'	Average 1.5	
Entrance weir E1	0	No criteria	Average 10.0	Manually adjusted.
Entrance weir E2	0	depth (≥ 8')	Average 12.8	
Entrance weir E3	0	depth (≥ 8')	Average 12.9	
Collection channel velocity	0	1.5 - 4 fps	Average N/A	Velocities completed 12/1/2013; end of adult passage.
Transportation channel velocity	0	1.5 - 4 fps	Average N/A	
North channel velocity	0	1.5 - 4 fps	Average N/A	
South channel velocity	0	1.5 - 4 fps	Average N/A	
West entrance differential	0	1.0' - 2.0'	Average 1.5	Daily differentials & weir depths, see AVGS tab.
Entrance weir W1	0	depth (≥ 8')	Average 8.9	
Entrance weir W2	0	depth (≥ 8')	Average 8.9	
Entrance weir W3	0	No criteria	Average closed	
South entrance differential	0	1.0' - 2.0'	Average 1.3	
Entrance weir S1	0	depth (≥ 8')	Average 8.2	
Entrance weir S2	0	depth (≥ 8')	Average 8.1	
JUVENILE PASSAGE				
Sluiceway operation	0	units 1,8,18		
Turbine trashrack drawdown	0	<1.5', wkly	Range: 0.2'-0.5'	
Spill volume	0	40%, 24hr	On seal.	
Spill Pattern	0	per FPP	On seal.	
Turbine Unit Priority	8	per FPP	Main Units 13, 14, and 15 out of service for maintenance purposes; see Outages below.	
Turbine 1% Efficiency	0	per FPP		

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

Bird observation data collected twice daily. There are mostly gulls and cormorants around the project, with grebes in the forebay. Most foraging occurring at west end of the powerhouse (PHT2) and downstream of sluiceway outfall (PHT3).

See avian zones map and distribution tabs. No sea lion sightings this week.

First bald eagle sighting near westrick. Eagle counts will resume this winter, but no behavior data collection as in previous years.

Operations:

Calibration check Nov29. Two marginally off. Will recalibrate after dewatering season.

Current Outages:

Station Service 01 out of service Oct15 to Dec6 for digital governor installation.

MU13 OOS Nov4 to Nov27 for annual maintenance.

MU14 OOS Nov12 to Nov21 for annual maintenance.

All units available for operation after Nov27.

Maintenance:

Fishway winter maintenance dewatering schedule; East fishway Dec3 to mid Jan. North fishway Jan15 through end of Feb.

Winter maintenance work; west entrance grating attachment upgrade, east exit weir upgrades, east exit water leak over electrical panel repair, west entrance wheel replacement, north ladder brush removal.

North entrance sill dive Jan 8 to remove gravel buildup.

Studies:

PIT - Temporary Thin Wall PIT tag Antenna continues to work successfully. North antenna to be repositioned late Jan. PSMFC investigating feasibility for PIT installation on ice trash sluiceway channel. Project providing prints for review.

EFL - Plan is for 10' dia. pipe through dam to AWS conduit under east fishladder. PDT members site visit and access dewatered fishway Dec10.

PUD - Modification of original FERC license underway for additional north turbine. No new developments this week.

Lamprey - Plating modifications in 14 lower east ladder weir orifices to be installed beginning Dec 9. Objective is to improve passage conditions in high flow velocity areas of weir orifices by creating attachment substrate.

Research/Contractors:

University of Idaho adult radiotelemetry downloading continues. Plans to clean up unused antennas this winter.

Planning underway to remove last set of 3 derelict Vertical Barrier Screens (VBS) from 90's research remains in MU 12 gatewell slot.

Plans underway for dive removal of remaining pier nose antennas this winter.

USFWS camera lamprey monitoring at both count stations completed. Equipment removal this winter.

Approved by;
Ron D. Twiner
Operation Project Manager
The Dalles Dam

The Dalles Dam Avian Zones

Washington Shore

FB1

PH-T1

PH-T2

SW-T1

PH-T3

SW-T3

SW-T2

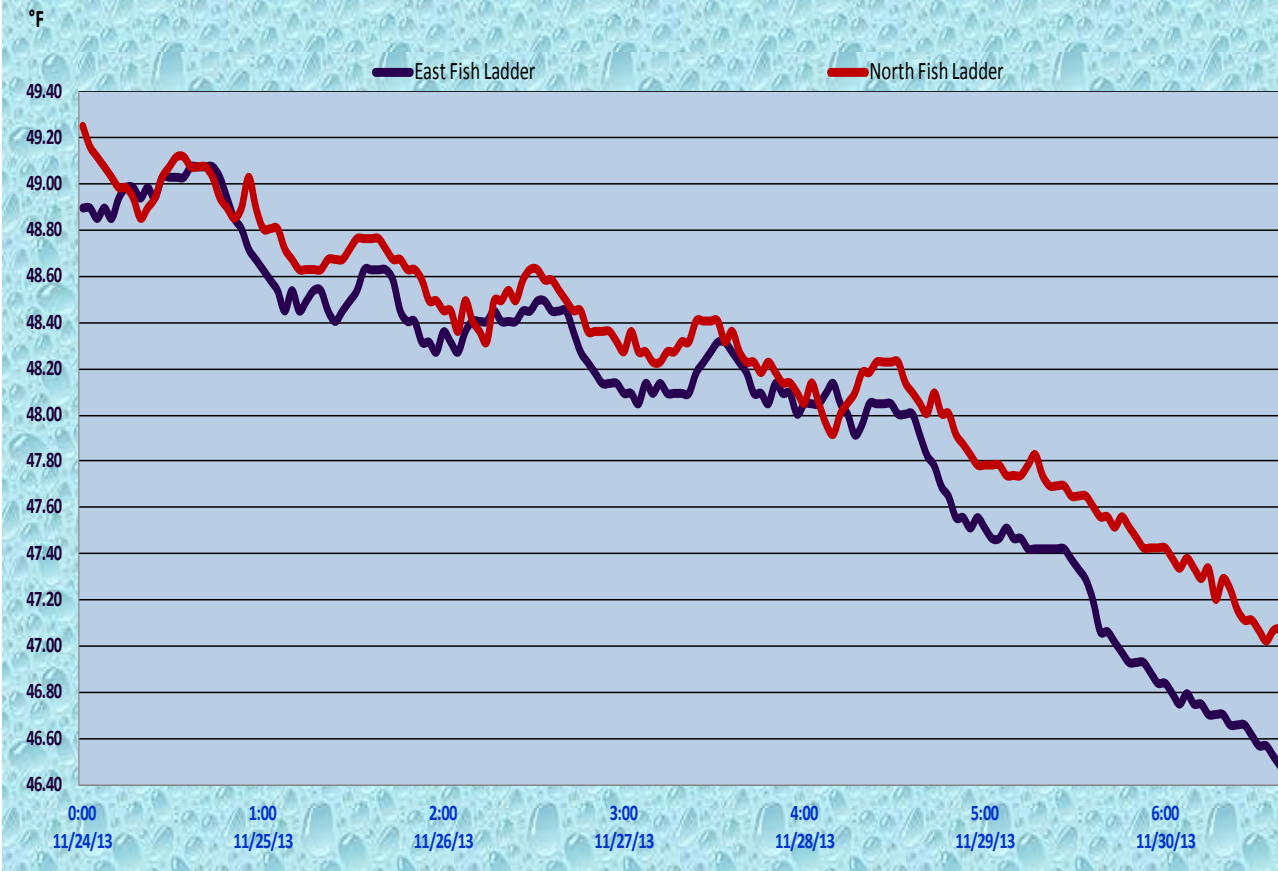
SW-T4

SW-T5

Oregon Shore



The Dalles Dam Adult Fish Ladder(s) River/Water Temperatures



Temp:		Secchi:	
49.1	SUN	5.0	
48.7	MON	5.0	
48.5	TUES	5.0	
48.3	WED	5.0	
48.1	THUR	5.0	
47.6	FRI	5.0	
47	SAT	5.0	
AVG: 48.2	AVG:	5.0	

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

= out of criteria

North Fish Ladder			East Fish Ladder											SPILL ON SEAL
North Entrance		East Entrance					West Entrance				South Entrance			
Date:	Differential	N1 Depth	Differential	E1Depth	E2 Depth	E3 Depth	JP 6	Differential	W1Depth	W2 Depth	W3 Depth	Differential	S1 Depth	S2 Depth
24-Nov-13			1.2	10.9	12.9	12.9	9.4	1.3	9.3	9.2	BULKHEAD INSTALLED	1.3	8.7	8.7
24-Nov-13	1.2	9.2	1.2	11.1	13.1	13.1	9.6	1.1	9.4	9.4		1.2	8.1	8.1
24-Nov-13	1.1	9.3	1.4	9.8	12.7	12.8	8.7	1.3	8.8	8.7		1.3	8.1	8.1
25-Nov-13			1.5	10.4	12.4	12.5	9.9	1.6	8.5	8.6		1.4	8.1	8.1
25-Nov-13	1.3	9.1	1.8	10.4	12.4	12.5	10.3	1.5	8.7	8.8		1.3	8.3	8.2
25-Nov-13	1.4	9.2	1.4	11.6	12.5	12.6	11.0	1.4	9.3	9.3		1.3	8.2	8.1
26-Nov-13			1.6	11.9	12.9	12.9	10.5	1.5	8.6	8.5		1.3	8.2	8.2
26-Nov-13	1.4	9.1	1.6	11.0	13.0	13.0	10.6	1.6	8.6	8.5		1.4	8.2	8.1
26-Nov-13	1.3	9.2	1.5	10.1	13.1	13.1	10.6	1.4	9.0	9.0		1.3	8.2	8.1
27-Nov-13			1.6	10.1	13.0	13.0	10.4	1.5	9.1	9.0		1.4	8.1	8.1
27-Nov-13	1.4	9.2	1.5	12.0	13.0	13.0	11.0	1.5	9.2	9.1		1.4	8.1	8.1
27-Nov-13	1.3	9.3	1.5	10.0	13.0	13.0	10.4	1.5	8.9	9.0		1.3	8.2	8.3
28-Nov-13			1.4	9.6	13.2	13.1	10.1	1.4	9.0	9.1		1.3	8.2	8.1
28-Nov-13	1.4	9.1	1.6	8.6	13.0	13.0	11.3	1.6	9.0	9.0		1.5	8.1	8.1
28-Nov-13	1.4	9.2	1.6	9.0	13.0	13.0	11.5	1.7	8.8	8.8		1.5	8.0	8.0
29-Nov-13			1.4	9.1	13.1	13.0	10.2	1.5	9.0	9.0		1.4	8.0	8.1
29-Nov-13	1.4	9.3	1.7	12.0	13.1	13.1	11.7	1.5	9.1	9.1		1.5	8.1	8.1
29-Nov-13	1.3	9.2	1.6	12.0	13.0	13.0	11.2	1.6	8.9	9.0		1.4	8.1	8.1
30-Nov-13			1.7	7.0	12.5	12.5	10.0	1.5	8.2	8.2		1.3	8.1	8.1
30-Nov-13	1.3	8.1	1.6	6.9	12.4	12.4	10.1	1.6	8.2	8.2		1.3	8.1	8.1
30-Nov-13	1.3	9.2	1.6	7.1	12.5	12.5	10.0	1.4	8.4	8.4	1.2	8.2	8.2	
AVG:	1.3	9.1	1.5	10.0	12.8	12.9	10.4	1.5	8.9	8.9	closed	1.3	8.2	8.1

Third fish way inspection for east fish ladder, east, west, and south entrances completed via automation system in fisheries office (SCADA).



Resident otter near north fishway exit.