

FISHWAY STATUS REPORT

Date: 8/22/2011
 Inspection Period: 8/14 to 8/20/2011

THE DALLES DAM



**US Army Corps
of Engineers**
Portland District

The Dalles Project-Fisheries
 P.O. Box 564
 The Dalles, OR 97058-9998
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Fishways are inspected twice daily.

The Dalles Dam	Inspections	Criteria	Total Number of Inspections:	21	Temperature:	65.4 °F
	Out of Criteria	Limit	Comments	Secchi:	4.5	Ft.
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	Daily differentials & weir depths, see AVGS tab.		
Entrance weir N1	0	depth (≥ 8')	Average 10.1			
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.			
Weir 158-159 differential	0	1.0' ± 0.1'				
Count station differential	0	≤ 0.3'	Picket leads raked 8/18.			
Weir crest depth	0	1.0' ± 0.1'				
Junction pool weir JP6	1	depth (≥ 7')	Out of criteria at 6.2'; manually adjusted to >7'			
East entrance differential	0	1.0' - 2.0'	Average 1.6	Daily differentials & weir depths, see AVGS tab.		
Entrance weir E1	0	No criteria	Average Closed	Manually adjusted.		
Entrance weir E2	0	depth (≥ 8')	Average 12.3			
Entrance weir E3	0	depth (≥ 8')	Average 12.3			
Collection channel velocity	0	1.5 - 4 fps	Average 2.4	See Velocities tab for more complete information.		
West entrance differential	0	1.0' - 2.0'	Average 1.5			
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	Daily differentials & weir depths, see AVGS tab.		
Entrance weir S1	0	depth (≥ 8')	Average 8.4			
Entrance weir S2	0	depth (≥ 8')	Average 8.4			
JUVENILE PASSAGE						
Sluiceway operation	0	units 1,8,16	18 changed to 16 7/25 due to line 6 taken out of service for powerhouse roof work.			
Turbine trashrack drawdown	0	<1.5', wkly	Range: 0.0' - 0.4'			
Spill volume	0	40%, 24hr	Average 39.8			
Spill Pattern	0	per FPP				
Turbine Unit Priority	0	per FPP				
Turbine 1% Efficiency	0	per FPP				

OTHER ISSUES:**THE DALLES**

Birds: Bird numbers continue to be low. See avian tab for additional information. USDA finished avian hazing contract 8/13.

Pikeminnow:

The Columbia River Northern Pikeminnow Management Dam Angling Program: angler effort 44.30 hours, 52 total northern pikeminnow captured, 52 northern pikeminnow \geq 230 mm, two sturgeon, and 11 game fish. The anglers are presently catching mostly small male pikeminnow.

Operations:

Gateway drawdown measurement completed 8/19. The differentials ranged from 0.0' to 0.4', all well within criteria.

Calibration completed on 8/16. Entrance weir E1 out of criteria by 0.4', west entrance channel out of criteria by 0.1'.

Tribal lamprey trapping coordination meeting held 8/15 to determine efficient means of trapping for three different tribes. Lamprey collected will be used as brood stock for supplementing respective tribal lands.

Maintenance:

Electricians fixed a faulty collection channel fish turbine auxiliary water conduit dial in control room.

Main Turbine Unit 17 gateway dewatered for VBS removal and orifice plate installation 8/17. Orifice backflow during this (< 1/2 hour) resulted in one steelhead, one sucker, and three shad mortalities. They were observed atop the bulkhead. Fish in this area are not normally observed and access is difficult. Future actions are to investigate procedure steps to determine how to keep fish in water and/or safely access for removal. The old vertical barrier screens were left in place from screen testing in early 90's. A Memorandum for the Record was sent to district. Two more vertical barrier screens are scheduled for removal. Unit 17b is scheduled for next week. Planning underway for better fish protection. Powerhouse roof rehab has begun, Main Units 17-22 out of service and was coordinated with FPOM. Concerns were raised on potential lack of attraction flow for adult to the east entrance. Flow into tailrace and east fishladder counts are being monitored for potential problems. The average attraction velocity to the east entrance in the tailrace from Main Unit 22 (which is next to the east entrance) to the boil caused by Main Unit 16 is 3.3 fps.

Studies:

Fishlock rehab planning continues as part of the east fishway backup water study. Plan includes opening valves to flush sediment from a bulkhead sill in preparation for dewatering this November. Dewatering will enable pipe cleaning. Once cleaning is complete, a flow test will be made to see how much water can be provided from the fishlock system.

Adult PIT tag development continues. Pacific States Marine Fish Commission lab site visit planned for second week of Sept.

Research:

Fisheries Field Unit's (FFU) Avian Predation Study: observations have concluded.

Oregon Department of Fish and Wildlife Bass Dam Angling Project: The Dalles forebay angler effort 42 hours, 30 smallmouth bass captured, 20 new tag, ten recaptured. The Dalles tailrace angler effort 25 hours, 31 smallmouth bass captured, two walleye, one pikeminnow, 24 new tag, and seven recaptured.

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

The Dalles Dam Adult Ladders Weekly Usage with Spill Percent

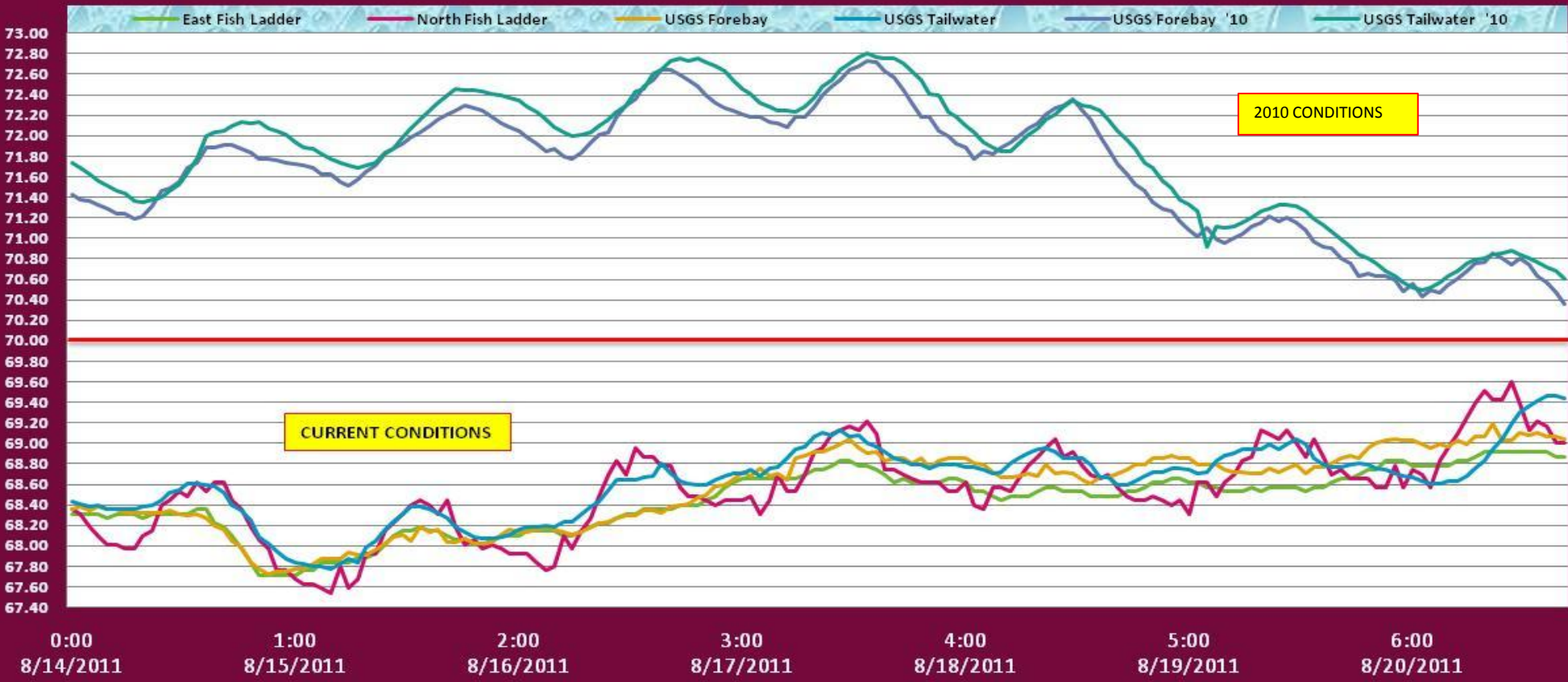
Date	East Chinook Adult	North Chinook Adult	East Chinook Jack	North Chinook Jack	Total East Sthd	Total North Sthd	East Unclipped Sthd	North Unclipped Sthd	East Sock	North Sock	East Coho	North Coho	East Coho Jack	North Coho Jack	East Lamprey	North Lamprey	Spill Volume
8/14/11	485	254	128	44	2845	1571	1021	595	1	0	0	0	7	0	36	61	39.9
8/15/11	568	250	172	34	3275	1069	1060	401	0	0	6	1	0	0	17	29	40.0
8/16/11	545	227	188	38	3578	1362	1051	462	0	0	12	2	8	0	6	56	40.1
8/17/11	432	324	175	60	2702	1232	782	499	0	0	20	2	1	2	10	46	40.0
8/18/11	662	253	215	25	3378	1102	1039	365	1	0	20	29	23	1	13	25	39.9
8/19/11	745	413	206	28	2836	970	840	341	2	0	64	29	30	4	10	44	40.0
8/20/11	787	506	246	65	2561	1567	808	521	4	0	106	115	49	14	8	29	39.9
Wkly Tot	4224	2227	1330	294	21175	8873	6601	3184	8	0	228	178	118	21	100	290	
% Split	65.5%	34.5%	81.9%	18.1%	70.5%	29.5%	67.5%	32.5%	100.0%	0.0%	56.2%	43.8%	84.9%	15.1%	25.6%	74.4%	

Spill Volume: 39.9% to 40.1%; notice that lamprey prefer the north ladder.

Follow up data analysis will be made after spill season to determine affect of spill to norht fishway passage.

The Dalles River/Water Temperatures

°F



The Dalles Dam Maximum Daily Bird Observations

Washington Shore

SW-T1: One osprey active.

SW-T3: Two to seven gulls resting on water and rocks; four cormorants resting on rocks.

SW-T4: No birds.

FB1: One to seven gulls resting on water; six to 79 cormorants roosting on Washington shore electrical towers.

SW-T2: Two cormorants fly

PH-T1: One cormorant active; six to nine cormorants resting on water and rocks.

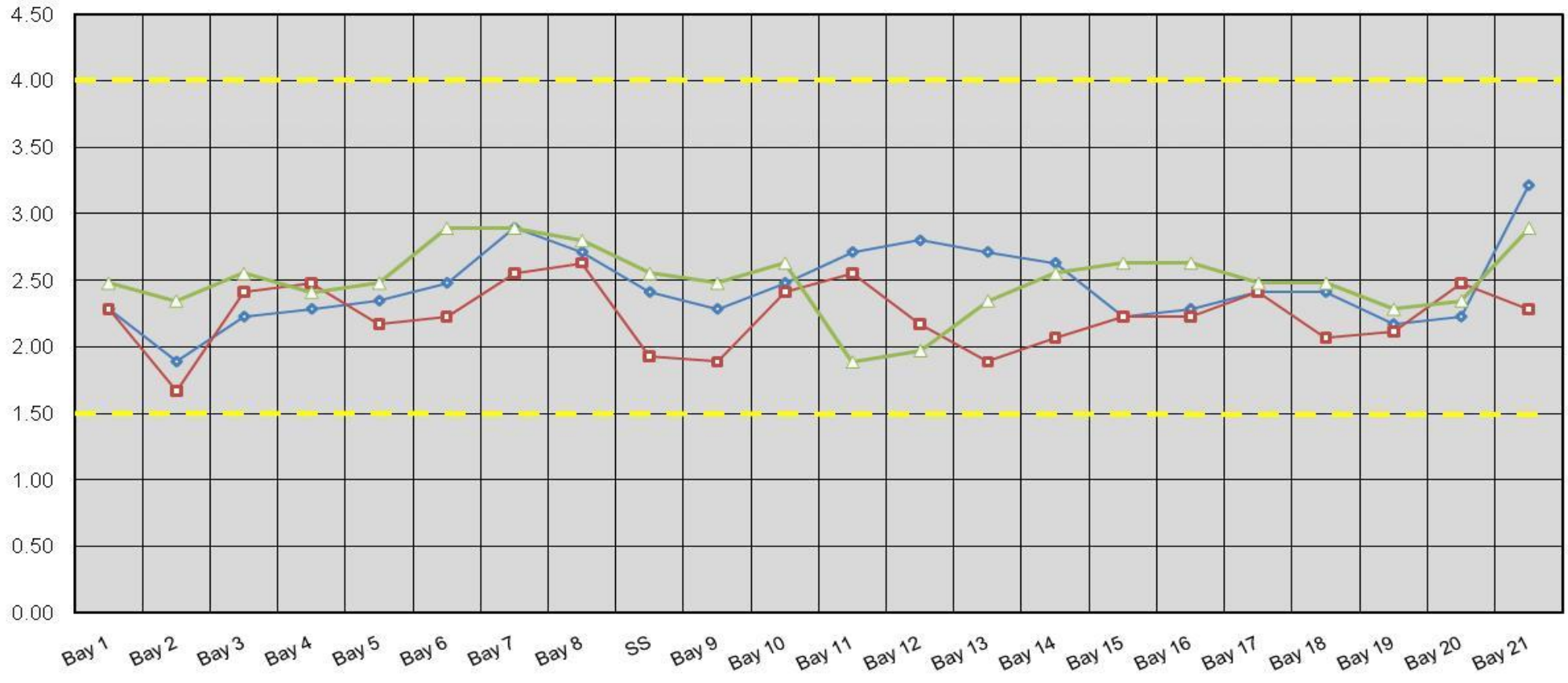
PH-T2: No birds.

PH-T3: No birds.

Oregon Shore

The Dalles Dam Collection Channel Velocities (fps)

8/18/2011 8/19/2011 8/20/2011



Temp:			Secchi:	
	68.2	SUN		4.5
	68.1	MON		5.0
	68.4	TUES		4.5
	68.9	WED		5.0
	68.8	THUR		5.2
	68.8	FRI		3.5
	69.1	SAT		3.8
AVG:	68.6	AVG:		4.5

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

North Fish Ladder			East Fish Ladder												
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	% Spill
14-Aug-11	1.3	9.9	1.4	Closed	11.3	11.5	6.2	1.2	8.5	8.5	Closed	1.1	8.5	8.5	40.1
14-Aug-11	1.4	10.0	1.7		12.6	12.5	8.5	1.5	8.6	8.6		1.2	8.6	8.6	39.8
14-Aug-11			1.4		11.4	11.4		1.3	8.6	8.4		1.1	8.4	8.4	
15-Aug-11	1.2	10.2	1.5		12.5	12.6	8.2	1.5	8.5	8.4		1.2	8.5	8.4	40.2
15-Aug-11	1.3	10.2	1.9		12.6	12.4	11.1	1.9	8.6	8.6		1.4	8.6	8.6	39.8
15-Aug-11			1.6		12.4	12.5		1.4	8.4	8.6		1.2	8.4	8.5	
16-Aug-11	1.4	10.0	1.7		12.5	12.5	10.4	1.6	9.0	9.1		1.4	8.4	8.5	40.1
16-Aug-11	1.3	10.1	1.6		12.5	12.6	8.6	1.4	9.0	9.0		1.3	8.4	8.5	41.4
16-Aug-11			1.8		12.5	12.5		1.4	9.1	9.1		1.3	8.4	8.5	
17-Aug-11	1.3	10.1	1.9		12.4	12.5	10.3	1.6	9.0	9.0		1.2	8.7	8.6	38.7
17-Aug-11	1.3	10.2	1.4		12.5	12.5	8.9	1.3	9.1	9.2		1.2	8.6	8.6	39.7
17-Aug-11			1.4		12.5	12.6		1.3	9.1	9.0		1.2	8.6	8.5	
18-Aug-11	1.2	10.1	1.4		12.5	12.4	8.7	1.2	9.4	9.5		1.1	8.6	8.6	39.4
18-Aug-11	1.4	10.1	1.8		12.1	11.9	12	1.6	10.1	10.1		1.4	8.5	8.5	39.6
18-Aug-11			1.3		12.5	12.4		1.2	9.5	9.4		1.2	8.5	8.5	
19-Aug-11	1.3	10.4	1.5		12.0	12.1	9.2	1.7	8.5	8.5		1.4	8.1	8.1	39.7
19-Aug-11	1.3	10.1	1.6		12.6	12.5	11.2	1.6	9.1	9.0		1.4	8.2	8.2	39.6
19-Aug-11			1.5		12.0	11.9		1.6	8.5	8.5		1.4	8.1	8.2	
20-Aug-11	1.2	10.2	1.4		12.5	12.4	8.6	1.5	8.8	8.0		1.3	8.1	8.2	39.5
20-Aug-11	1.3	10.1	1.7		12.0	12.0	10.4	1.8	8.6	8.5		1.4	8.2	8.1	39.0
20-Aug-11			1.4	12.5	12.4		1.4	9.0	9.1	1.4	8.1	8.0			
AVG:	1.3	10.1	1.6	Closed	12.3	12.3	9.5	1.5	8.9	8.9	Closed	1.3	8.4	8.4	39.8

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