

FISHWAY STATUS REPORT

Date: 08/07/2011

Inspection Period: 07/31-08/6/2011

THE DALLES DAM



**US Army Corps
of Engineers**
Portland District

The Dalles Project-Fisheries
P.O. Box 564
The Dalles, OR 97058-9998
Phone: 541-506-3800

Fishways are inspected twice daily. Additional daily monitoring done via automation system in fisheries office.

The Dalles Dam	Inspections	Criteria	Total Number of Inspections:	20	Temperature:	67.5	F
	Out of Criteria	Limit	Comments	Secchi:	4.3	Ft.	
NORTH FISHWAY							
Exit differential	0	≤ 0.5'					
Count station differential	0	≤ 0.3'					
Weir crest depth	1	1.0' ± 0.1'	0.8' the PLC was adjusted.				
Entrance differential	1	1.0' - 2.0'	Average	1.3	PUD off during ROV grating inspection.		
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 and window cleaned on 8/2.				
Weir crest depth	0	1.0' ± 0.1'					
Junction pool weir JP6	1	depth (≥ 7')	Manually adjusted as needed. 5.7' due to tailwater fluctuations.				
East entrance differential	1	1.0' - 2.0'	Average	1.5	FU 2 malfunction - adjusted by operators.		
Entrance weir E1	0	No criteria	Average	Closed	Manually adjusted.		
Entrance weir E2	0	depth (≥ 8')	Average	11.9			
Entrance weir E3	0	depth (≥ 8')	Average	11.9			
Collection channel velocity	0	1.5 - 4 fps	Average	2.7	See Velocities tab for more complete information.		
West entrance differential	1	1.0' - 2.0'	Average	1.5	FU 2 malfunction - adjusted by operators.		
Entrance weir W1	0	depth (≥ 8')	Average	9.3			
Entrance weir W2	0	depth (≥ 8')	Average	9.3			
Entrance weir W3	0	No criteria	Average	Closed			
South entrance differential	1	1.0' - 2.0'	Average	1.2	FU 2 malfunction - adjusted by operators.		
Entrance weir S1	0	depth (≥ 8')	Average	9.0	Manually adjusted.		
Entrance weir S2	0	depth (≥ 8')	Average	8.5			
JUVENILE PASSAGE							
Sluiceway operation	0	units 1,8,18	Sluiceways are open on MU 16 - not 18. MU18 off for re-roofing contract.				
Turbine trashrack drawdown	0	<1.5', wkly	Range: 0.1-0.4				
Spill volume	1	40%, 24hr	Average	39.6	37.6% on 8/2; FU 2 malfunction - fixed by operators.		
Spill Pattern	0	per FPP					
Turbine Unit Priority	0	per FPP					
Turbine 1% Efficiency	0	per FPP					

OTHER ISSUES:**THE DALLES**

Birds: Very few gulls in the tailrace spillway. There are some osprey hunting, cormorants and gulls in the forebay. See avian tab below for more information.

Pikeminnow:

The Columbia River Northern Pikeminnow Management Program Dam Angling and Site-Specific Fishery: Dam angling effort 74.75 hours, total NPM 149, NPM \geq 230 mm 141, one sturgeon, 12 game fish.

Operations:

Gateway drawdown completed on 8/6/11. Differentials were 0.1-0.4' . Fish Passage Plan criteria $<1.5'$.

Entrance calibration check completed 8/2/11. Several weirs $>0.3'$ off . Maintenance notified

The Main Unit 21 scroll case was dewatered for maintenance. Fish rescue personnel inspected the dewatered turbine scroll case as soon as the water level reached a depth permitting visual inspection. Fisheries personnel provided technical guidance on fish safety, assured that rescue equipment was available that was needed, and participated in fish salvage. Upon entering the scroll case personnel observed one sub-yearling Chinook and one adult lamprey mortalities. The sub-yearling had no signs of physical injury and adult lamprey was partially decomposed. A Memorandum for the Record was written and sent to District.

Maintenance:

East fishway Fish Unit F1 out of service 3 Aug at 0700hr for diffuser grating inspection and turbine bearing oil pressure switch replacement. Returned to service 3 Aug at 1344hr. This work was planned to coincide with the scheduled fish unit outage for the ROV grating inspection.

East fishway Fish Unit F2 out of service 3 Aug at 1000hr for diffuser grating inspection and returned to service 1406hr.

The north PUD turbine attraction water was off approx 0700 to 0900 for diffuser grating ROV inspection.

Project fisheries ROV inspected diffuser grating for the junction pool, east, west, south and north entrances. All grating found secure with gaps $< 1"$. Diffuser gratings between overflow weirs within the fishladder cannot be inspected due to flow.

Powerhouse roof rehab continues. 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 ranged from 2.2 - 3.0 fps. East ladder fish counts continue to look normal.

Studies:

Adult PIT tag alternatives study project support continue as needed.

East fishway backup water supply study support continues. Project engineering is planning scope of work for dewatering fishlock channels, cleaning supply piping and testing amount of water that can be provided by the fishlock system.

Research:

Pacific Northwest National Laboratory will stop data collection at The Dalles Dam ~ 15 Aug. After that , their presence at the project will be servicing equipment during the rest of the summer and fall. Planning will continue to re-secure pier nose pipes.

Planning also continues for removal of old USGS equipment on powerhouse pier noses and inside sluiceway this winter.

Confederated Tribes of the Umatilla Indian Reservation: Collection for reporting period, 43 fish captured from the east ladder between the count station picket leads. The fish are then transported in an insulated 300 gallon slip tank to the South Fork Walla Walla Adult Holding Facility and then transferred to Minthorn Springs on the Umatilla River in the fall 2011 to be held until out planting in the spring 2012.

The Yakama Nation Fisheries Resource Management Program plans a site visit 15 Aug. The object of the visit is to identify better access to trapping locations, identify locations and facilities for temporary lamprey storage. The tours with protocols for transport and improve protocols future distribution between tribes and USACE research/translocation needs.

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

The Dalles Dam Fish Counts

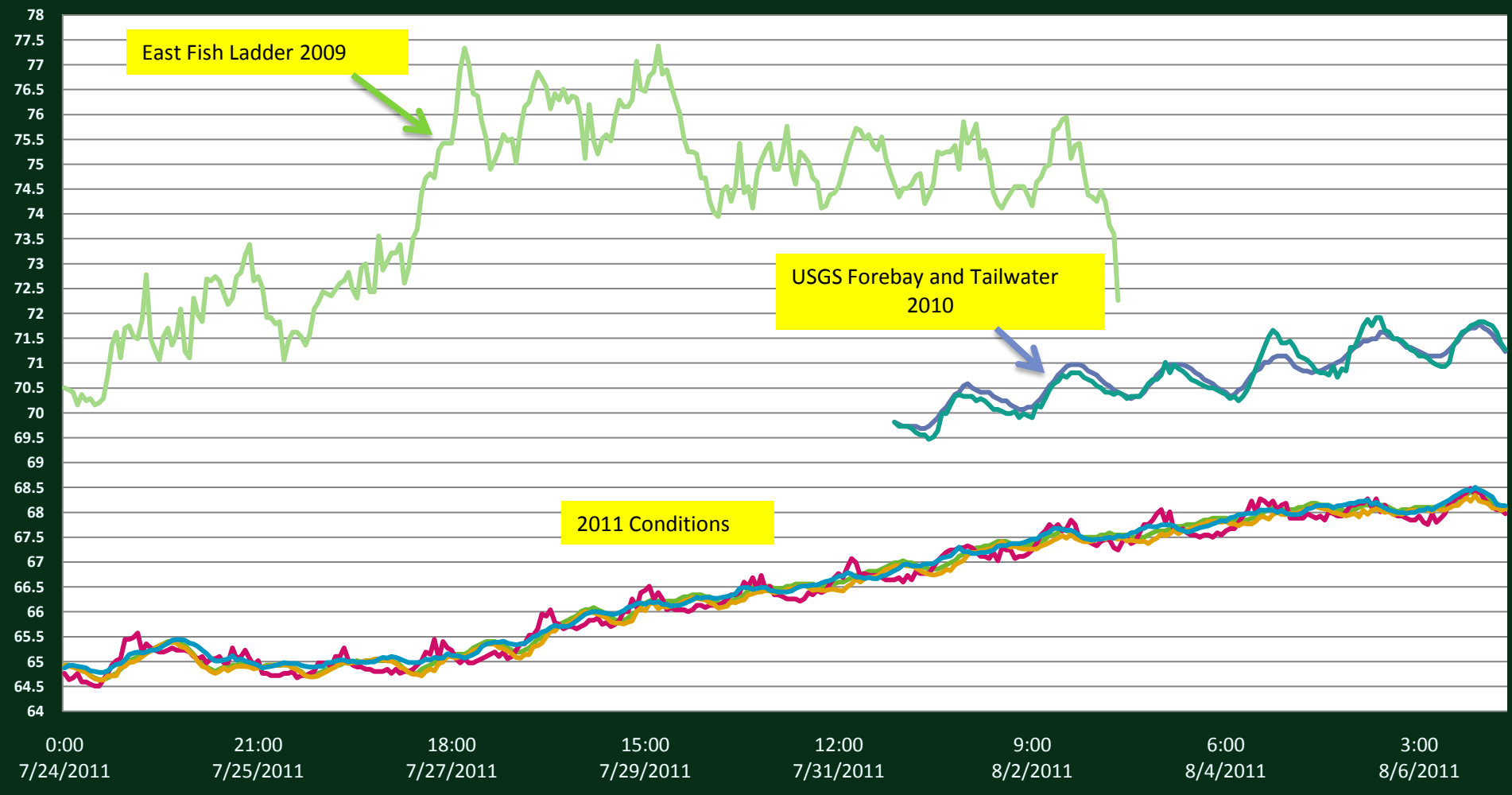
Date	East Chinook Adult	North Chinook Adult	East Chinook Jack	North Chinook Jack	Total East Sthd	Total North Sthd	East Wild Sthd	North Wild Sthd	East Sock	North Sock	East Coho	North Coho	East Coho Jack	North Coho Jack	East Lamprey	North Lamprey	Spill Volume
31-Jul	497	170	350	37	4944	2267	2242	1222	67	23	0	0	0	0	28	80	39.8
1-Aug	502	192	252	44	4623	1597	2093	830	70	10	0	0	2	0	29	77	39.9
2-Aug	576	148	301	55	5564	2178	2329	1103	28	10	0	0	0	0	35	52	40.0
3-Aug	240	161	170	35	3726	1980	1500	881	32	6	2	0	2	0	53	106	39.9
4-Aug	353	162	137	29	5765	1991	2236	913	14	6	0	0	2	0	25	118	39.9
5-Aug	268	191	73	22	4307	2339	1519	983	18	4	1	1	0	0	30	118	39.9
6-Aug	346	110	176	20	3898	2184	1427	830	5	6	-1	0	0	0	71	124	40.0
Wkly Tot	2782	1134	1459	242	32827	14536	13346	6762	234	65	2	1	6	0	271	675	
% Split	71.0%	29.0%	85.8%	14.2%	69.3%	30.7%	66.4%	33.6%	78.3%	21.7%	66.7%	33.3%	100.0%	0.0%	28.6%	71.4%	

Spill range: 39.8% - 40.0%

Deg F

The Dalles River/Water Temperatures (2011 vs 2010 & 2009)

- East Fish Ladder 2011
- North Fish Ladder 2011
- USGS Forebay 2011
- USGS Tailwater 2011
- East Fish Ladder 2010
- North Fish Ladder 2010
- East Fish Ladder 2009



The Dalles Dam Maximum Daily Bird Observations

Washington Shore

SW-T1: four osprey active and three

SW-T3: one cormorant active.

SW-T4: No birds.

FB1: 101 gulls resting on the water, 66 cormorants resting in the towers, two grebes and three osprey active.

SW-T2: No birds.

PH-T1: six cormorants resting on the rocks

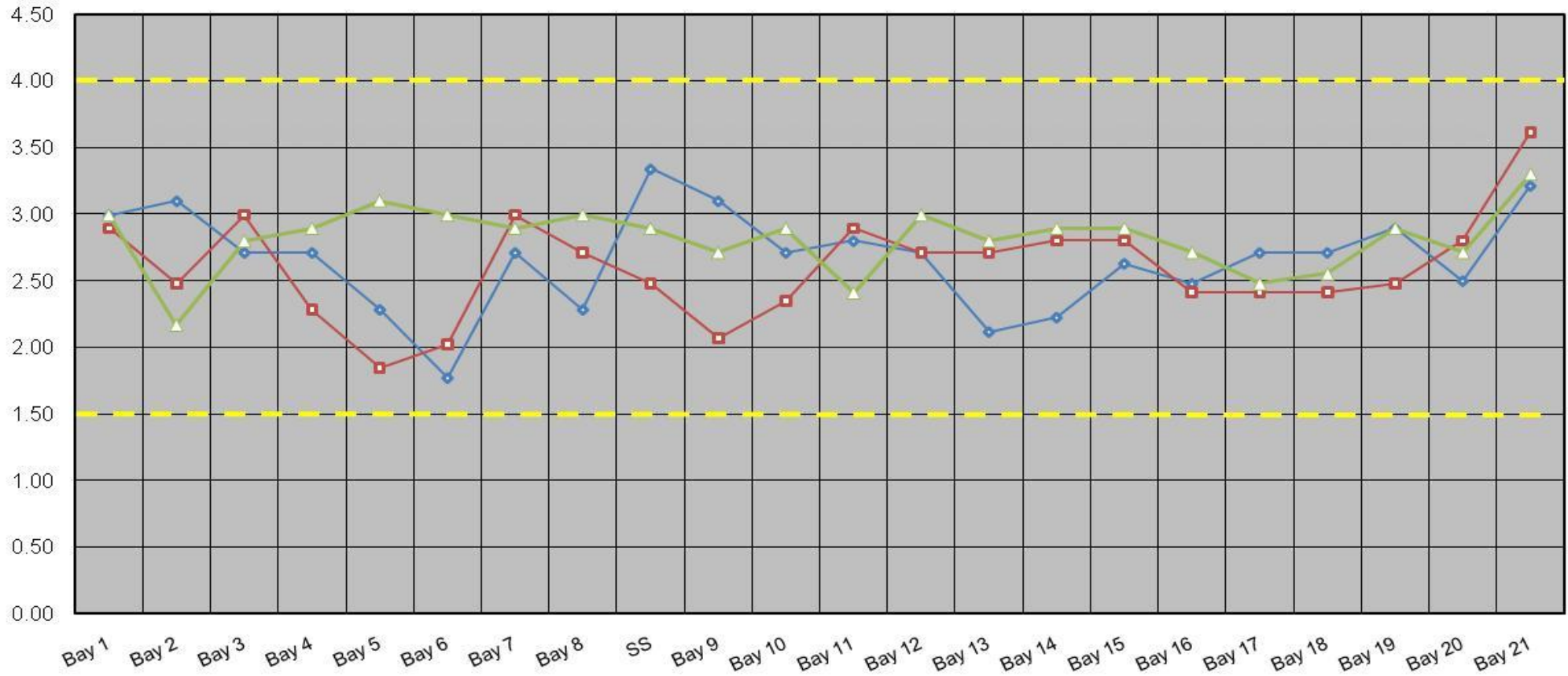
PH-T2: No birds.

PH-T3: No birds.

Oregon Shore

The Dalles Dam Collection Channel Velocities (fps)

8/1/2011 8/2/2011 8/3/2011



Temp:		Secchi:	
	66.6	SUN	4.0
	67.0	MON	4.5
	67.4	TUES	4.5
	67.6	WED	4.0
	67.9	THUR	4.0
	68.1	FRI	5.0
	68.1	SAT	4.0
AVG:	67.5	AVG:	4.3

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
7/31/11	1.3	10.1	1.6		12.0	12.1	9.5	1.6	9.1	9.0		1.2	9.8	8.6	39.9
7/31/11	1.3	10.1	1.6		12.0	12.1	10.8	1.7	9.1	8.9		1.1	11.2	8.6	39.4
7/31/11			1.8		12.0	12.1		1.7	9.5	9.4		1.2	11.2	8.4	
8/1/11	1.3	10.2	1.6		12.4	12.5	9.5	1.5	9.5	9.5		1.2	9.7	8.5	39.4
8/1/11	1.4	10.0	1.5		12.6	12.4	9.3	1.5	9.5	9.4		1.3	9.4	8.4	39.1
8/1/11			1.4		12.5	12.5		1.5	9.5	9.6		1.2	9.7	8.5	
8/2/11	1.4	10.1	1.6		11.9	12.1	8.7	1.5	9.0	9.1		1.4	8.4	8.4	37.6
8/2/11	1.3	10.1	1.3		12.0	12.1	7.9	1.4	9.1	9.2		1.4	8.5	8.5	39.9
8/3/11	1.3	10.1	0.9		10.5	10.5	8.8	0.8	8.5	8.5		0.9	8.6	8.5	39.9
8/3/11	0.7	10.1	1.0		11.7	12.0	5.7	1.0	9.2	9.1		1.1	8.6	8.5	40
8/3/11			1.7		10.6	10.6		1.6	8.5	8.5		1.4	8.6	8.4	
8/4/11	1.3	10.1	1.6		11.4	11.6	8.7	1.5	9.0	8.8		1.3	8.5	8.5	40.3
8/4/11	1.4	10.0	1.6		11.6	11.6	9.5	1.6	9.1	9.1		1.4	8.5	8.6	39.9
8/4/11			1.9		10.5	10.5		1.7	8.5	8.6		1.5	8.6	8.6	
8/5/11	1.4	10.0	1.5		12.6	12.5	9.8	1.4	10.0	9.9		1.3	8.6	8.6	39.4
8/5/11	1.3	10.1	1.5		12.5	12.5	9.2	1.4	10.1	10.1		1.3	8.6	8.6	39.5
8/5/11			1.8		11.6	11.6		1.8	8.8	8.8		1.5	8.5	8.5	
8/6/11	1.3	10.2	1.3		12.6	12.6	8.9	1.3	10.0	10.0		1.3	8.4	8.5	40.1
8/6/11	1.3	10.1	1.6		12.4	12.4	9.7	1.4	10.0	10.0		1.3	8.6	8.5	40.1
8/6/11			1.3		12.4	12.4		1.2	10.0	10.1		1.2	8.5	8.6	
AVG:	1.3	10.1	1.5	Closed	11.9	11.9	9.0	1.5	9.3	9.3	Closed	1.3	9.0	8.5	39.6

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