

FISHWAY STATUS REPORT

Date: 4/17/2011
 Inspection Period: 4/10 - 4/16/2011

THE DALLES DAM



**US Army Corps
of Engineers**
Portland District

The Dalles Project-Fisheries
 P.O. Box 564
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Fishways are inspected twice daily. Additional daily monitoring done via automation system in fisheries office.

The Dalles Dam	Inspections	Criteria	Total Number of Inspections:	21	Temperature:	46.3	F
	Out of Criteria	Limit	Comments		Secchi:	2.4	Ft.
NORTH FISHWAY							
Exit differential	0	≤ 0.5'					
Count station differential	0	≤ 0.3'					
Weir crest depth	0	1.0' ± 0.1'	Daily differentials & weir depths, see AVGS tab.				
Entrance differential	0	1.0' - 2.0'	Average	1.4			
Entrance weir N1	0	depth (≥ 8')	Average	10.2			
Entrance weir N2		Closed	Bulkhead installed				
PUD Intake differential	0	≤ 0.5'	PUD trash racks raked 4/4.				
EAST FISHWAY							
Exit differential	0	≤ 0.5'					
Removable weirs 154-157	1	Per forebay	Auto adjusts 1' increments. OOC at forebay 157.1				
Weir 158-159 differential	0	1.0' ± 0.1'					
Count station differential	0	≤ 0.3'	Picket leads raked 4/6, 4/7. Moderate debris loads,.				
Weir crest depth	0	1.0' ± 0.1'					
Junction pool weir JP6	0	depth (≥ 7')	Manually adjusted as needed. Daily differentials & weir depths, see AVGS tab.				
East entrance differential	2	1.0' - 2.0'	Average	1.7	2.1 & 2.3'. Corrected through manual adjustment.		
Entrance weir E1	0	No criteria	Average	5.9	Manually adjusted for optimum differential.		
Entrance weir E2	0	depth (≥ 8')	Average	10.9			
Entrance weir E3	0	depth (≥ 8')	Average	10.9			
Collection channel velocity	0	1.5 - 4 fps	Average	3.3	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	12.2			
Entrance weir W2	0	depth (≥ 8')	Average	12.2			
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	8.7	Manually adjusted.		
Entrance weir S2	0	depth (≥ 8')	Average	8.8			
JUVENILE PASSAGE							
Sluiceway operation	0	units 1,8,18					
Turbine trashrack drawdown	0	<1.5', wkly	Range:	0.1-0.3'			
Spill volume	0	40%, 24hr	Average	39.7 %	Spill started on 4/10/11 for fish		
Spill Pattern	0	per FPP					
Turbine Unit Priority	1	per FPP	Operator was notified.				
Turbine 1% Efficiency	0	per FPP					

OTHER ISSUES:

THE DALLES

Birds: Very few birds around the project. Nesting osprey observed on PUD nest platform. USDA completed installation of new avian lines 4/7. The new lines bridge a gap upstream of the bridge and down stream of the Ice/Trash sluiceway oufall due to heavy predation by gullss last passage season. USDA to start avian hazing 5/1.

Pikeminnow:

Pre meeting for WDFW dam angling 4/21 at Pacific States Marine Fish Commission office.
Potential ODFW dam angling for bass to determine salmonid consumption rate to occur this summer. This will supersede projects plan to collect bass bycatch from pikeminnow dam anglers.

Operations:

Weir calibrations and gatewell drawdown completed 4/16. The gatewell drawdown all in criteria. The east entrance tailwater, channel and weir E1 were out of criteria. The electricians have been working on troubleshooting the PLC.

Turbine unit 10 dewatered for maintenance 4/11 for 5 year overhaul. Found 5 dead juvenile lamprey in draft tube. Cause unknown.
Units 11 and 12 scheduled out of service for maintenance and installation of fall protection. Return to service 4/14.

Maintenance:

Periodic automation problems with east entrance. Electricians troubleshooting. East entrance maintaining criteria.

Studies:

Support of east fishladder backup water supply continues. Investigation and testing of turbine equalize header supply soon.
Reviewing proposed lamprey passage improvement list items for fishways to determine feasibility for next winter outage.

Research/Contractors:

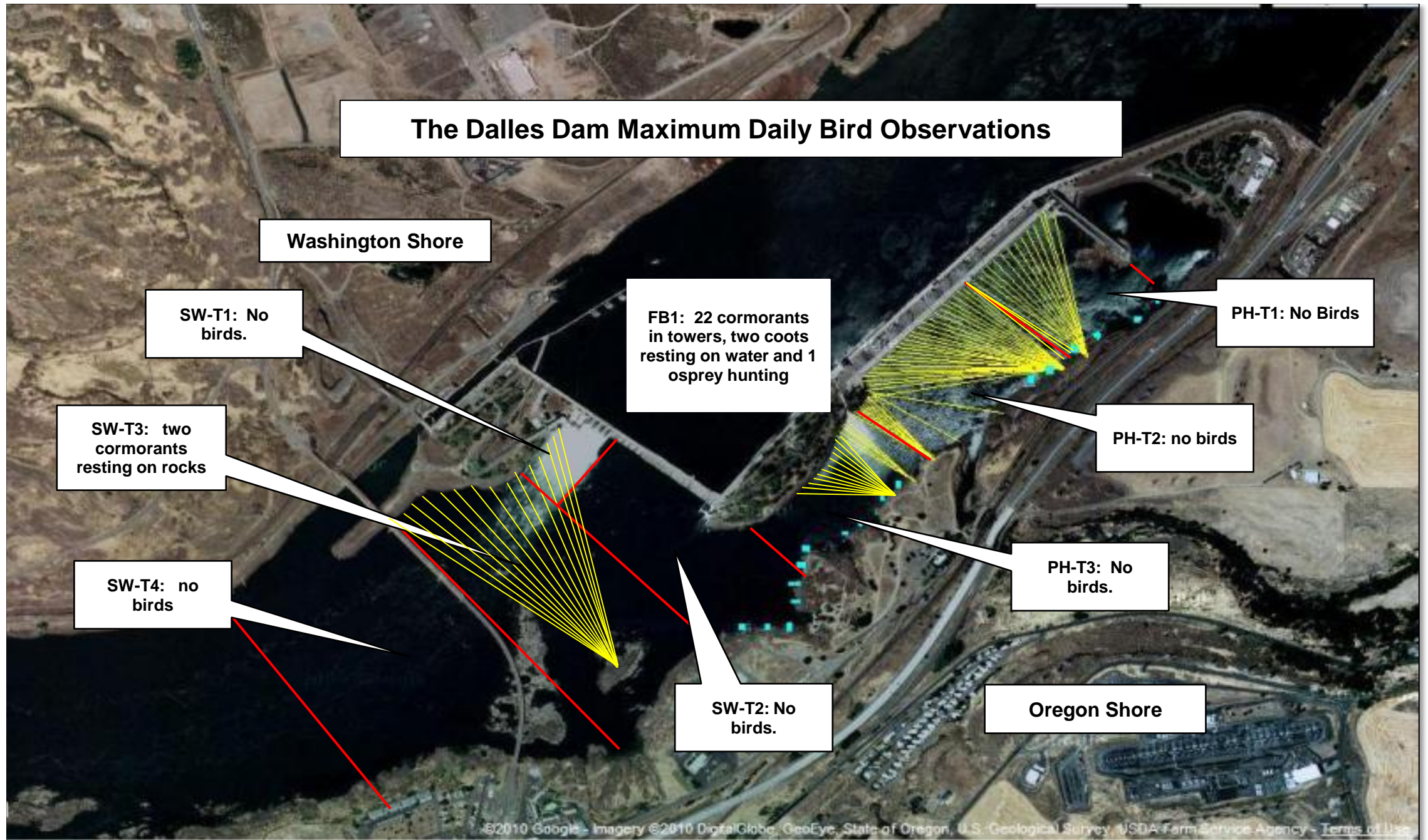
Fisheries Field Unit started gull predation observations for second year of study.
USFWS camera mounts inside picket leads at count stations. No cameras installed to date.
Battelle juvenile passage research (JSAT) data collection underway.

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 kcfs
4/10/11	14	0	0	0	25	0	14	0	0	0	0	0	0	0	0	0	126.6
4/11/11	5	2	0	0	20	0	10	0	0	0	0	0	0	0	0	0	115.6
4/12/11	17	0	0	0	26	0	13	0	0	0	0	0	0	0	0	0	119.4
4/13/11	28	1	0	0	14	0	10	0	0	0	0	0	0	0	0	0	111.4
4/14/11	36	1	0	0	19	0	13	0	0	0	0	0	0	0	0	0	104.4
4/15/11	20	0	0	0	27	0	14	0	0	0	0	0	0	0	0	0	109.5
4/16/11	25	11	0	0	18	2	5	0	0	0	0	0	0	0	0	0	80.8
Wkly Tot	145	15	0	0	149	2	79	0	0	0	0	0	0	0	0	0	
% Split	90.6%	9.4%	#DIV/0!	#DIV/0!	98.7%	1.3%	100.0%	0.0%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	

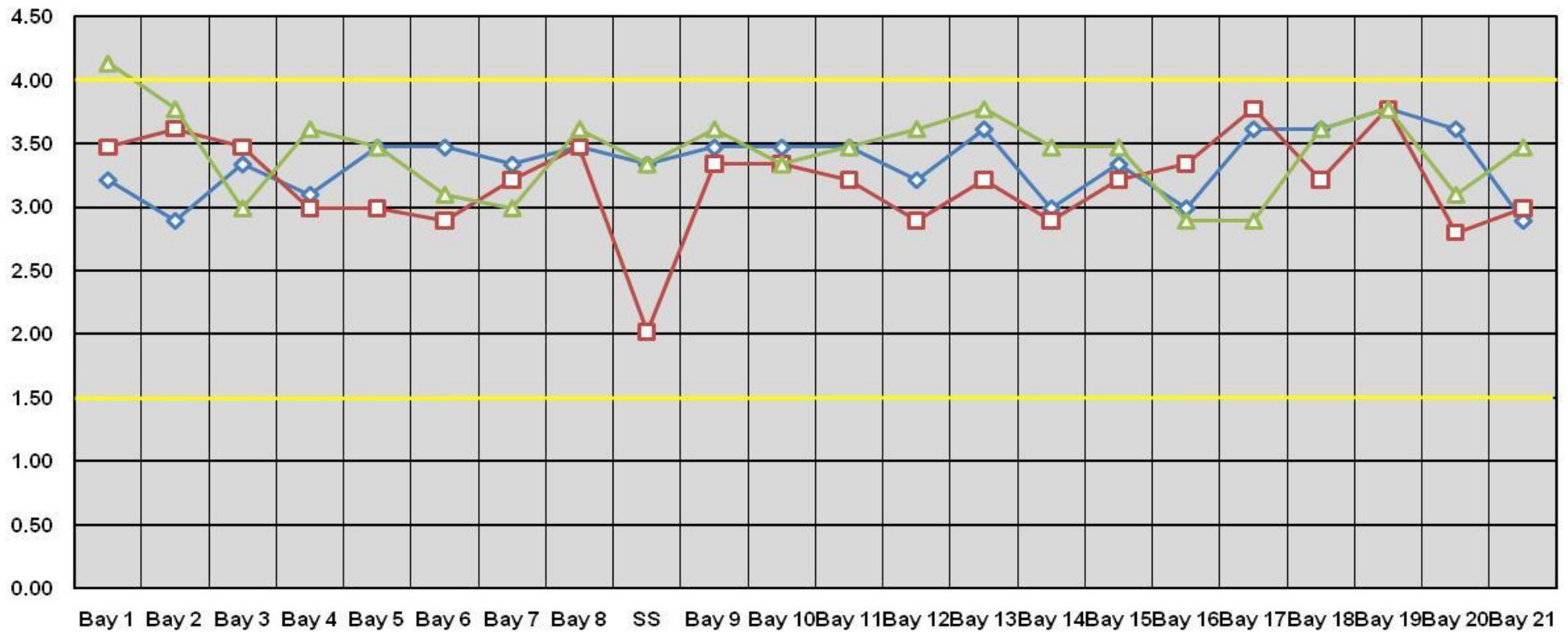
Spill range: 80.8 - 126.6 kcfs, 40% of the river flow



Note; Yellow lines indicate avian line grid as of Apr7, '11. Red lines indicate separation of zones of observation.

The Dalles Dam Collection Channel Velocities (fps)

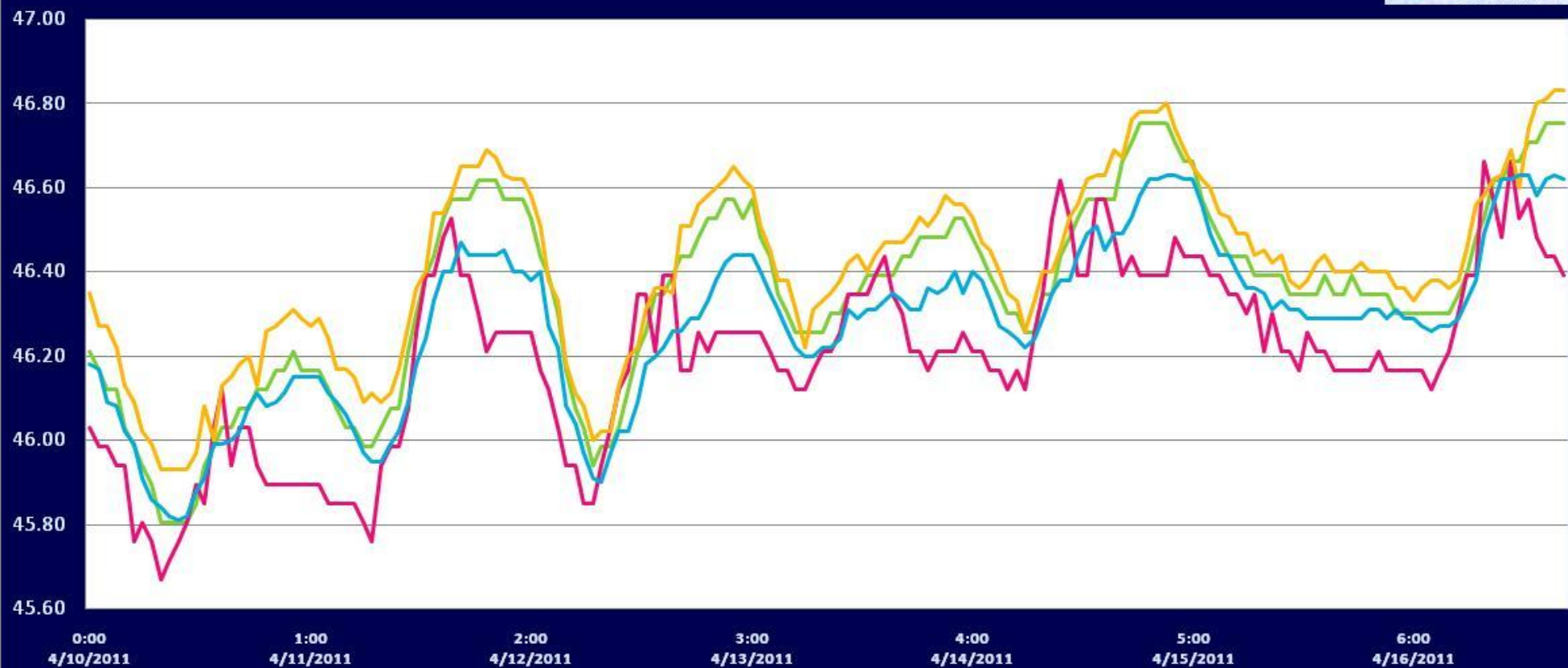
4/9/2011 4/10/2011 4/12/2011



The Dalles River/Water Temperatures

Deg F

- East Fish Ladder
- North Fish Ladder
- USGS Forebay
- USGS Tailwater





Battelle conducting error analysis for the JSATS system using remote operated small boat with acoustic tags hanging in the water.

Temp:		Secchi:
45.96	SUN	2.0
46.20	MON	3.5
46.22	TUES	3.0
46.32	WED	2.5
46.40	THUR	2.0
46.39	FRI	2.0
46.41	SAT	2.0
AVG: 46.27	AVG:	2.4

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
4/10/11	1.4	10.0	1.7	0.9	9.9	10.0	11.8	1.6	12.9	12.9		1.5	9.4	9.4	39.8
4/10/11	1.4	10.1	1.7	0.9	9.9	10.0	11.8	1.6	12.9	12.9		1.5	9.4	9.5	39.6
4/10/11			1.7	0.9	9.9	10.0		1.6	13.1	13.1		1.4	9.7	9.7	
4/11/11	1.4	10.2	1.7	0.9	9.9	10.0	11.8	1.5	13.1	13.1		1.6	8.9	9.0	40.5
4/11/11	1.3	10.6	1.7	0.9	9.9	10.0	11.8	1.5	13.0	12.9		1.6	8.9	8.9	39.5
4/11/11			1.7	0.9	9.9	10.0		1.5	13.1	13.1		1.5	9.0	9.1	
4/12/11	1.4	10.0	1.5	9.0	9.0	9.0	8.3	1.7	13.0	12.9		1.7	9.0	9.0	40.4
4/12/11	1.3	10.1	2.1		11.6	11.5	10.4	1.4	13.0	13.4		1.4	9.0	9.6	39.5
4/12/11			1.7	0.9	9.9	10.0		1.6	13.0	13.1		1.6	9.0	9.0	
4/13/11	1.3	10.1	2.0	1.3	13.6	13.6	10.5	1.6	11.3	11.2		1.2	9.1	9.1	39.4
4/13/11	1.4	10.2	1.0	8.4	13.4	13.4	11.5	1.8	11.1	11.1		1.5	8.3	8.3	38.7
4/13/11			2.3	1.0	9.6	9.6		1.4	13.1	13.0		1.3	9.1	9.1	
4/14/11	1.4	10.0		13.5	13.5	13.5	9.4	1.5	10.5	10.5		1.3	8.3	8.4	40.1
4/14/11	1.3	10.2						1.6	10.5	10.5		1.4	8.2	8.2	40.8
4/14/11			2.0	12.0	12.0	12.0		1.7	10.5	10.6		1.4	8.4	8.4	
4/15/11	1.3	10.1	1.5	10.5	10.5	10.4		1.6	12.6	12.4		1.5	8.3	8.3	39.6
4/15/11	1.3	10.3	2.0	13.0	13.0	13.0	10.4	1.5	11.4	11.4		1.4	8.2	8.2	39
4/15/11			1.1	10.5	10.5	10.5		1.4	12.5	12.5		1.4	8.3	8.3	
4/16/11	1.4	10.0	1.3	10.4	10.4	10.4	8.9	1.6	12.4	12.5		1.3	8.4	8.3	39.5
4/16/11	1.3	10.2						1.5	11.0	11.0		1.5	8.1	8.2	
4/16/11			1.3	10.0	10.0	10.0		1.2	12.6	12.6		1.3	8.2	8.3	
AVG:	1.4	10.2	1.7	5.9	10.9	10.9	10.6	1.5	12.2	12.2	Closed	1.4	8.7	8.8	39.7

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