

The Dalles Dam Fishway Status Report

09/08/19

Inspection Period: 9/1-9/7, 2019

THE DALLES DAM



US Army Corps
of Engineers
Portland District

The Dalles Project-Fisheries
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The Dalles Dam	Inspections OOC	Criteria Limit	Total Number of Inspections:	21	Temperature:	72.1 °F
			Comments:	Hot Dam!		
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 for week =	1.34		
Entrance weir N1	0	depth (≥ 8')	Average for week =	9.4		
Entrance weir N2	0	Closed				
PUD Intake differential	0	≤ 0.5'				
EAST FISHWAY						
Exit differential	0	≤ 0.5'				
Removable weirs 154-157	1	Per forebay	Weir 157 experiencing mechanical brake failure, able to maintain criteria manually.			
Weir 158-159 differential	0	1.0' ± 0.1'				
Count station differential	0	≤ 0.3'				
153 Weir crest depth	0	1.1' ± 0.1'				
Junction pool weir JP6	0	0.0	Average for week =	11.3		
East entrance differential	0	1.0' - 2.0'	Average for week =	1.43		
Entrance weir E1	0	No criteria				
Entrance weir E2	0	depth (≥ 8')	Average for week =	13.38		
Entrance weir E3	0	depth (≥ 8')	Average for week =	13.40		
Collection channel velocity	0	1.5 - 4 fps	2.51 fps Average	Range:	2.77 fps MU2/21 - 1.91 fps MU19 9/7/19	
Transportation channel velocity	0	1.5 - 4 fps	2.17 fps	9/7		
North channel velocity	0	1.5 - 4 fps	3.06 fps	9/8		
South channel velocity	0	1.5 - 4 fps	3.08 fps	9/7		
West entrance differential	0	1.0' - 2.0'	Average for week =	1.4		
Entrance weir W1	0	depth (≥ 8')	Average for week =	8.7		
Entrance weir W2	0	depth (≥ 8')	Average for week =	8.7		
Entrance weir W3	closed	No criteria				
South entrance differential	0	1.0' - 2.0'	Average for week =	1.4		
Entrance weir S1	0	depth (≥ 8')	Average for week =	8.8		
Entrance weir S2	0	depth (≥ 8')	Average for week =	8.8		
JUVENILE PASSAGE						
Sluicelgate operation	0	Units 1, 8, 18	unit 6-2 and 6-3 instead of 8 starting 8/29			
Turbine trashrack drawdown	0	<1.5', biwkly	Fish check in gatewells 8/28, Only adult shad loafing about in some wells.			
Spill volume/pattern	0	None				
Turbine Unit Priority	0	per FPP				

OTHER ISSUES:

Operation

East & North fish ladders in full operation.

Sluiceway open with 6 gates total. Units 1, 8 and 18 (unit 9 open in place of 8 beginning 8/22 due to unit 8 outage)

Spillway closed

Outages

MU9 Out for overhaul and T5 replace RTS 11/25/19

MU10 Out for annual and T5 replace RTS 9/13/19

MU11 and 12 Out for T5 CT circuit demo RTS 9/13/19

T10 (MU19 & 20) FOOS through 10/28/2021 due to acetylene levels

Maintenance

Calibration check 9/6: all entrances maintaining, calibration and FPP criteria.

Collection channel dewatering pumps 5 and 6 rehab ongoing. Completion prior to Dec for dewatering.

Fishway automation replacement purchase ongoing. Labor for assembly and install FY20.

Engineering evaluation of east fishway diffuser valve status/rehab to resume.

Spillway assessment (MRER); No funding for FY20. Spillgate 9 fish priority to be considered.

Weir 157 secured out of ladder. Soft constraint in place to hold forebay below 195.5' for two weeks to begin 9/6/19 to maintain ladder flow criteria.

Predators

USDA hazing season concluded July 31. Post season meeting 9/10 at The Dalles to determine planning for next season. Includes 3 lower Columbia projects.

Continue collecting observation data on Pelicans to determine target species. Numbers of pelicans low, gull counts low.

Sea Lions not observed from dam year to date.

Research/Construction/Contractors

Fish counting contractors (Four Peaks) fish counting continues.

For fish count data refer to; [FPC FISH COUNTS](#)

AWS backup - Moving forward with follow on contract items and spare parts. Pre meeting this week with potential vendors.

Transformer replacement - T3 ongoing. Testing after august completion. Date to be determined

PSMFC weekly PUD sampling last sample taken for season on 7/31. To resume next April.

PITAGS north and east fishladder data collection at count stations continues.

Pikeminnow dam angling-3/week & 2227 YTD. **Bass/Walleye catch and release continues.** States in 3rd year of internal discussions on the matter.

ODFW monthly fishway inspections ongoing.

Lamprey minor mods - Planning for potential LPS in junction pool. Awaiting planning meetings.

Univ of Idaho lamprey radiotelemetry - Second season of lamprey passage night flow completion last week of August for total 18 night flow adjustments.

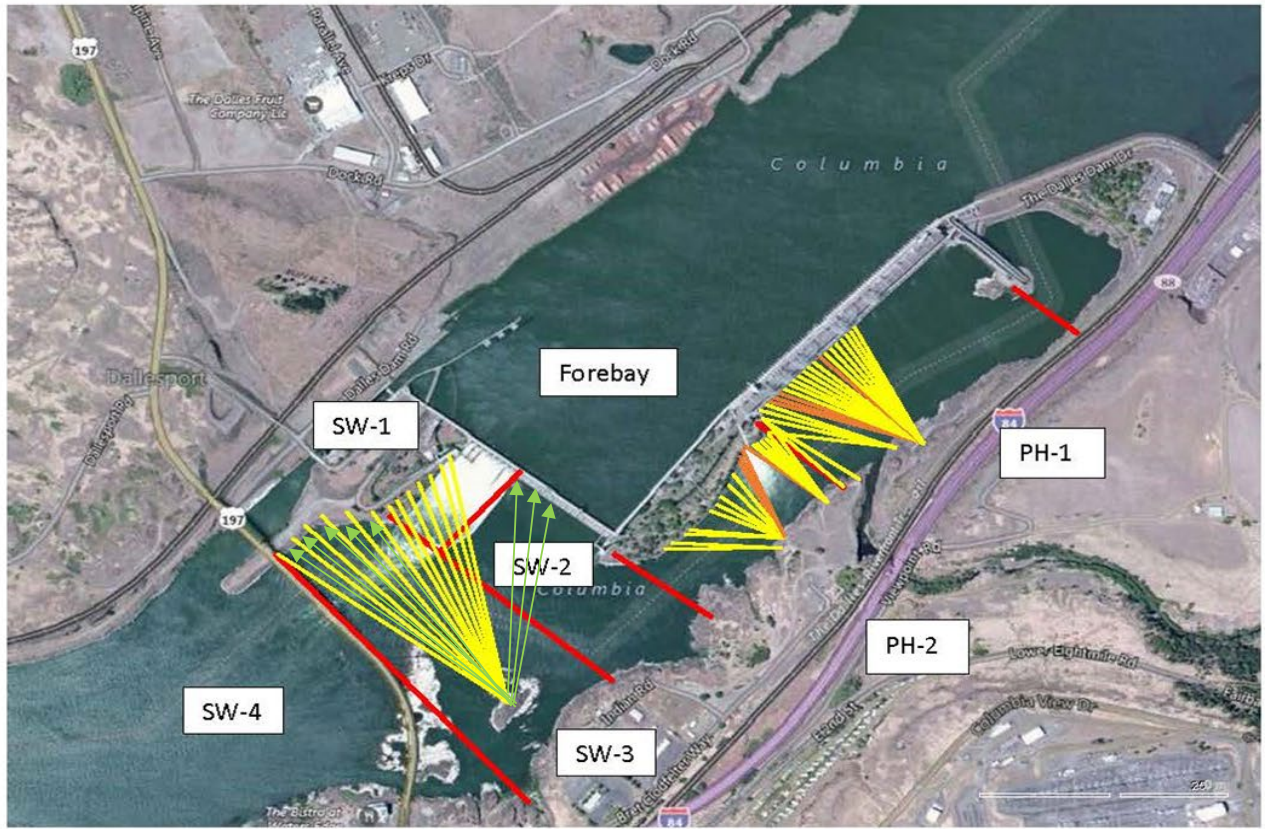
Lamprey trapping - Continues with 588 YTD.

Fish unit breaker replace.- Planning second season of work Dec1-Mid Jan. Multiple measures taken to avoid last years unacceptable schedule slip.

Fish unit rehab - Ongoing for phase 1A.

Approved by: Mike Colesar

Operation Project Manager The Dalles Dam



Red lines = avian zones

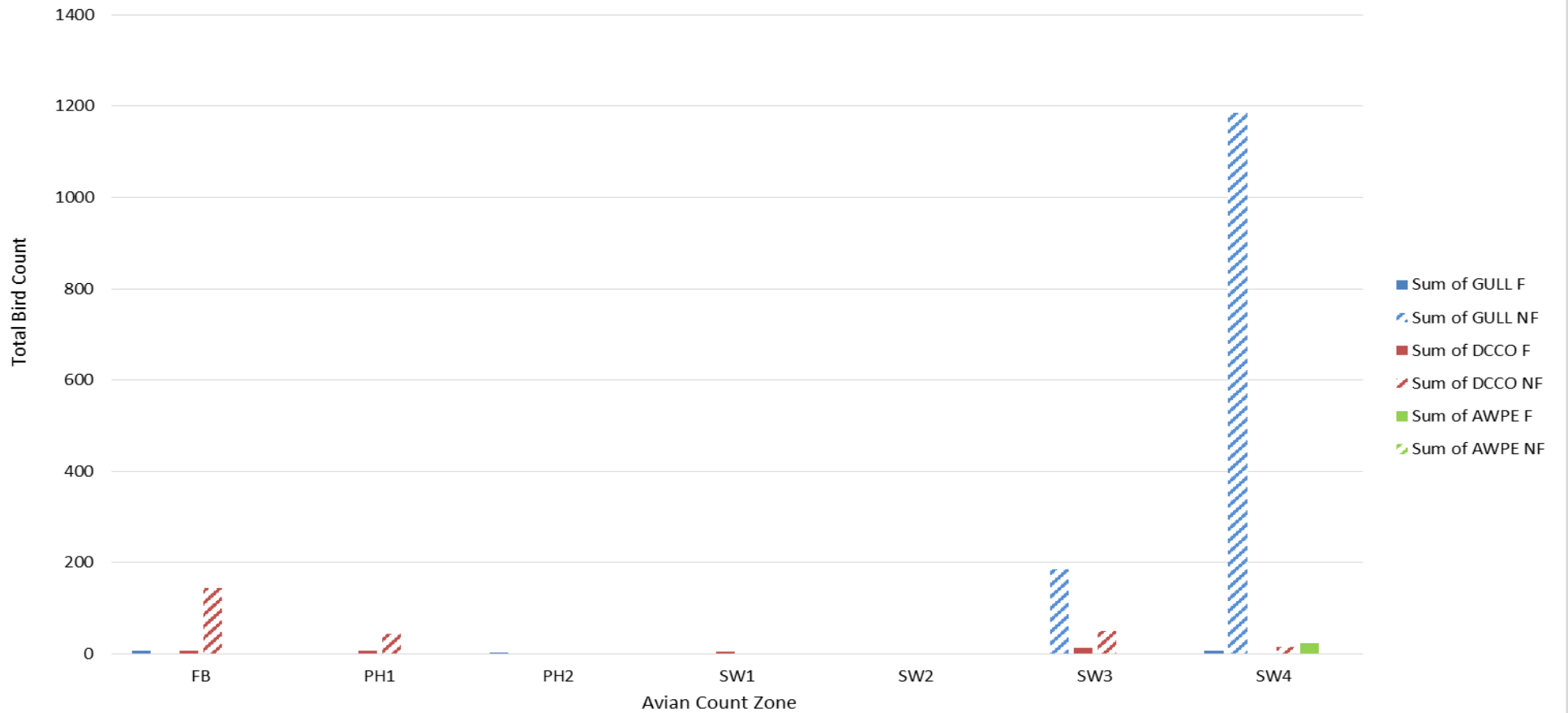
Yellow lines = current wires

Orange lines = down or missing wires

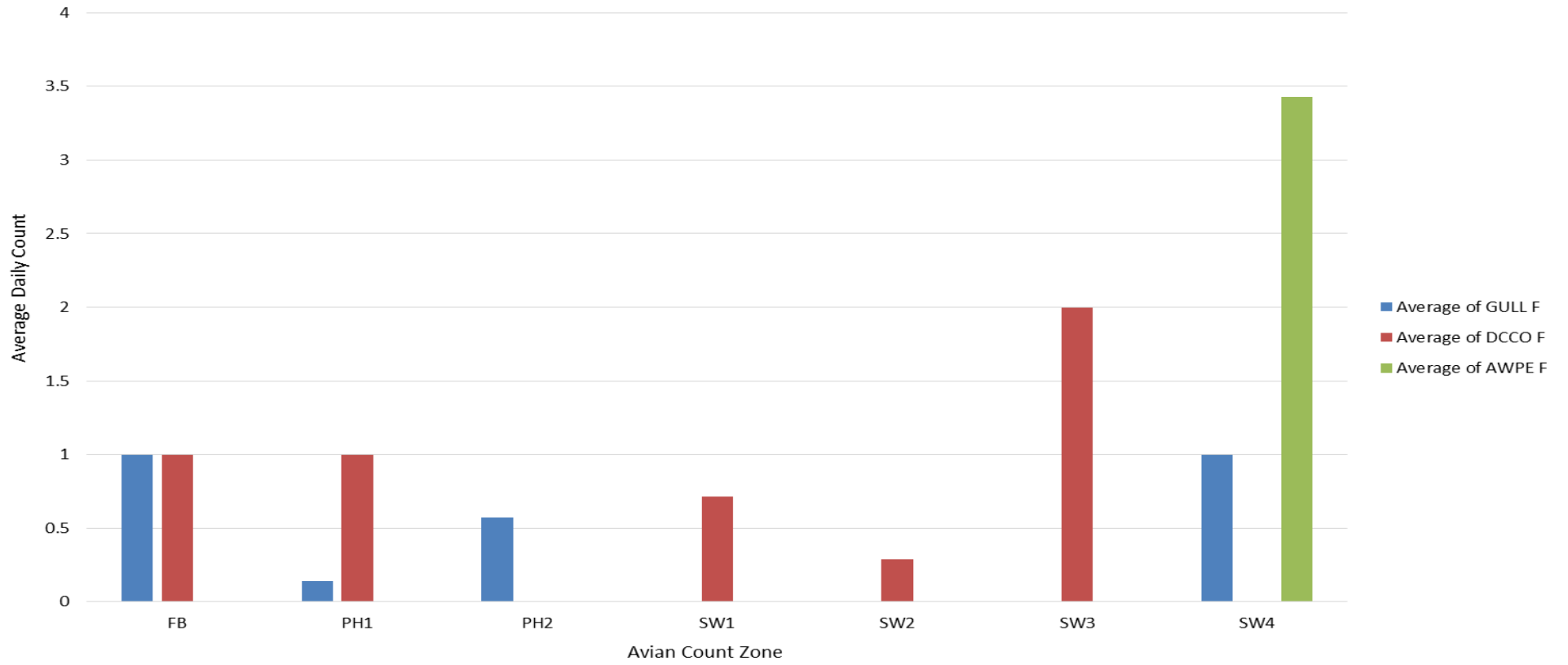


Additional avian lines installed 9/2018

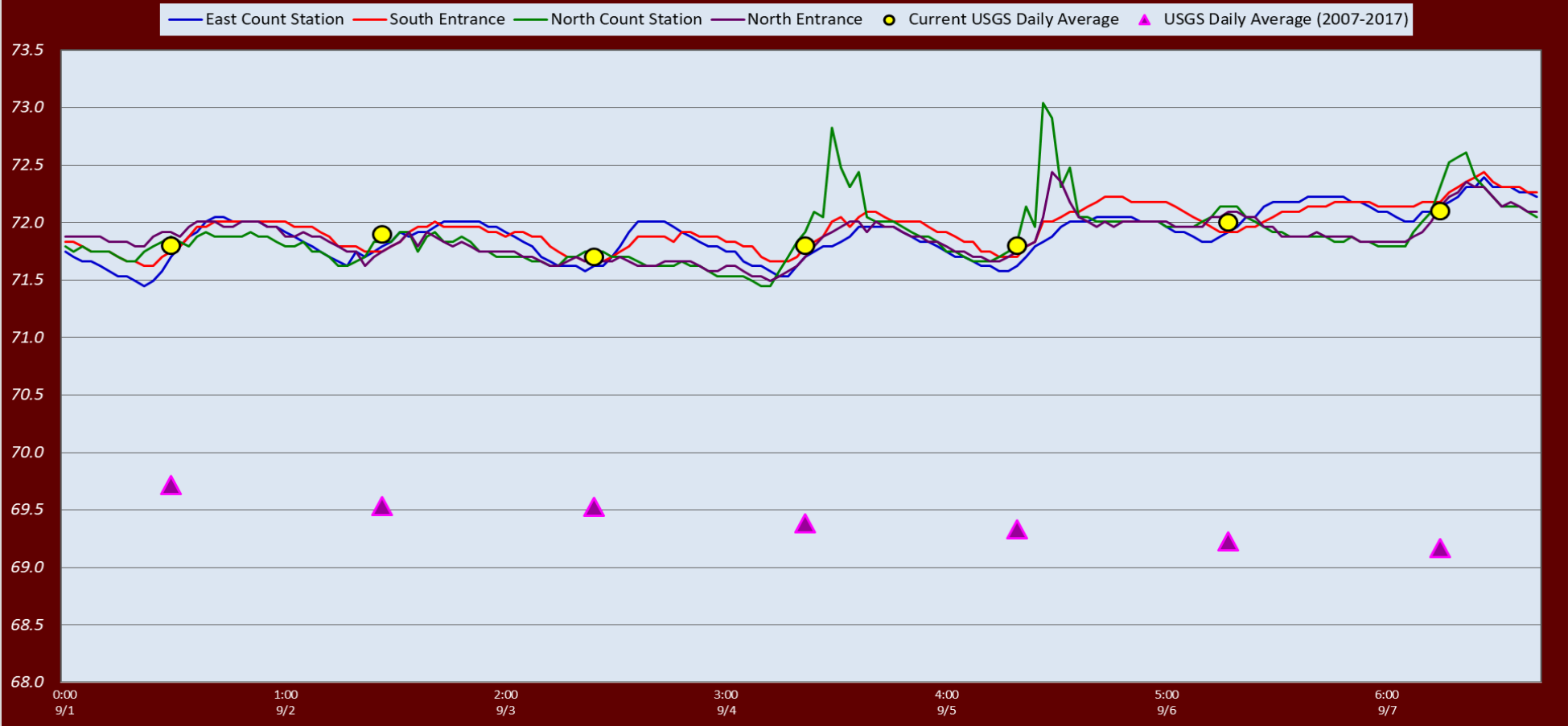
Total Bird Activity By Zone 9/1-9/7



Average Daily Bird Foraging



The Dalles Dam Fish Ladder(s)-River Temperatures



		USGS:
Secchi:		Temperatures
9/1	5.0 Sun	71.8
9/2	5.0 Mon	71.9
9/3	5.0 Tue	71.7
9/4	5.0 Wed	71.8
9/5	5.0 Thurs	71.8
9/6	5.0 Fri	72.0
9/7	5.0 Sat	72.1
	5.0 AVG	72.1

[Sept. Temps](#)

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

SCADA INSPECTION

Sensor error

Date:	North Ladder Entrance		East Ladder											
	Differential	N1 Depth	East Entrance- open					West Entrance			South Entrance			
			Differential	E1 Depth	E2 Depth	E3 Depth	JP 6	Differential	W1	W2	W3	Differential	S1	S2
9/1	1.4	9.4	1.3		13.6	13.6	11.5	1.4	8.9	8.9		1.4	8.8	8.8
	1.4	10.0	1.4		13.4	13.4	11.4	1.5	8.8	8.8		1.4	8.9	8.9
	1.4	10.0	1.5		13.6	13.6	11.9	1.5	8.9	8.9		1.4	8.8	8.8
9/2	1.3	9.3	1.4		13.4	13.4	11.0	1.3	8.8	8.8		1.4	8.8	8.8
	1.3	9.3	1.4		13.5	13.5	11.0	1.6	8.4	8.4		1.5	8.8	8.8
	1.3	9.3	1.4		13.5	13.5	10.8	1.5	8.3	8.3		1.4	8.9	8.9
9/3	1.4	9.3	1.5		13.5	13.5	11.0	1.3	8.6	8.6		1.3	8.8	8.8
	1.4	9.3	1.5		13.5	13.5	11.3	1.6	8.6	8.6		1.5	8.8	8.8
	1.4	9.4	1.6		13.4	13.4	11.9	1.5	8.8	8.8		1.4	8.9	8.9
9/4	1.3	9.4	1.3		13.5	13.5	11.1	1.4	8.7	8.7		1.4	8.8	8.8
	1.3	9.4	1.6		13.1	13.1	12.0	1.5	8.8	8.8		1.4	8.9	8.9
	1.4	9.3	1.6		13.1	13.1	12.2	1.6	8.9	8.9		x	x	x
9/5	1.2	9.7	1.3		13.5	13.5	10.7	1.4	8.9	8.9		1.3	8.9	8.9
	1.2	9.7	1.4		13.5	13.5	11.3	1.5	8.8	8.8		1.5	8.8	8.8
	1.3	8.6	1.4		13.4	13.6	11.5	1.4	8.9	8.9		1.4	8.8	8.8
9/6	1.3	9.5	1.3		13.5	13.6	11.1	1.4	8.8	8.8		1.4	8.8	8.8
	1.3	9.5	1.4		13.4	13.5	11.0	1.4	8.8	8.8		1.4	8.7	8.7
	1.4	9.4	1.3		13.5	13.5	11.3	1.4	8.9	8.9		1.5	8.7	8.7
9/7	1.3	9.3	1.4		13.0	12.9	10.9	1.3	8.8	8.8		1.4	8.8	8.8
	1.3	9.3	1.4		12.9	13.0	10.2	1.3	8.7	8.7		1.4	8.7	8.7
	1.3	9.4	1.4		13.2	13.2	10.9	1.4	8.7	8.7		1.4	8.7	8.7
AVG:	1.3	9.4	1.4		13.4	13.4	11.3	1.4	8.7	8.7		1.4	8.8	8.8

Fishways are inspected twice daily plus one SCADA inspection.

x values for South entrance differential and gates are erroneous due to sensor fluctuations.