

# The Dalles Dam Fishway Status Report

06/29/19

Inspection Period: June 23 - June 29, 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: 64.3 °F
			Comments: High shad numbers passing.	Secchi: 4.2 feet
<b>NORTH FISHWAY</b>				
Exit differential	0	≤ 0.5'		
Count station differential	0	≤ 0.3'		
Weir crest depth	0	1.3' ± 0.1'		Raised to 1.3' to allow increased shad passage.
Entrance differential	0	1.0' - 2.0'	1.3	
Entrance weir N1	0	depth (≥ 8')	10.0	
Entrance weir N2	0	Closed		
PUD Intake differential	0	≤ 0.5'		
<b>EAST FISHWAY</b>				
Exit differential	0	≤ 0.5'		Not available.
Removable weirs 154-157	0	Per forebay		
Weir 158-159 differential	0	1.0' ± 0.1'		
Count station differential	0	≤ 0.3'		
153 Weir crest depth	0	1.3' ± 0.1'	1.3' criteria to allow shad passage; 1x t	
Junction pool weir JP6	0	0.0		
East entrance differential	0	1.0' - 2.0'		
Entrance weir E1	0	No criteria		
Entrance weir E2	0	depth (≥ 8')		
Entrance weir E3	0	depth (≥ 8')		
Collection channel velocity	0	1.5 - 4 fps	2.23 fps on 6/26; range 1.59 fps at MU15, to 2.61 fps at MU10	
Transportation channel velocity	0	1.5 - 4 fps	2.42 fps on 6/26.	
North channel velocity	0	1.5 - 4 fps	2.05 fps on 6/26.	
South channel velocity	0	1.5 - 4 fps	3.39 fps on 6/26.	
West entrance differential	0	1.0' - 2.0'		
Entrance weir W1	0	depth (≥ 8')		
Entrance weir W2	0	depth (≥ 8')		
Entrance weir W3	closed	No criteria		
South entrance differential	0	1.0' - 2.0'		
Entrance weir S1	0	depth (≥ 8')		
Entrance weir S2	0	depth (≥ 8')		
<b>JUVENILE PASSAGE</b>				
Sluiceway operation	0	Units 1, 8, 18;		
Turbine trashrack drawdown	0	<1.5', biwkly	Gatewells inspection 6/26/19. Live smolts, and shad in most wells.	
Spill volume/pattern	0	None	Gates 1 through 8 open to flex spill pattern.	
Turbine Unit Priority	0	per FPP	MU 5 and 6 OOS for maintenance	
Turbine 1% Efficiency	1	per FPP	MU 16 briefly OOC 6/27 due to mechanical.	

## OTHER ISSUES:

### Operation:

East & North fish ladders in full operation.  
Sluiceway open with 6 gates total. Units 1, 8 and 18  
Spillway open for summer juvenile passage.  
Spill KCFS beginning to stay below 100 total

### Outages

MU5 FOOS through 1700 8/29/2019 for T3 GSU transformer replacement  
MU6 OOS 0830 11/19/2018 - 1700 8/29/2019 for T3 GSU transformer replacement  
T10 (MU19 & 20) FOOS through 10/28/2021 due to acetylene levels  
SSO2 OOS 0630 6/3/2019 - 1700 7/11/2019 for O/H.

### Maintenance:

East count station window/crowder brush repaired again. Looking into improvements for long term reliability.  
Calibration check 6/27: West entrance PLC setpoint inaccuracy, still within criteria.  
Collection channel dewatering pumps 5 and 6 rehab work remains.  
Fishway automation parts purchase ongoing. Labor for assembly and install FY20.  
Engineering evaluation of east fishway diffuser valve status to resume.  
Spillway assessment in progress. Spillway crane replace and spillgate 9 repair included. Prioritizing gates 1-9 as first for rehab.

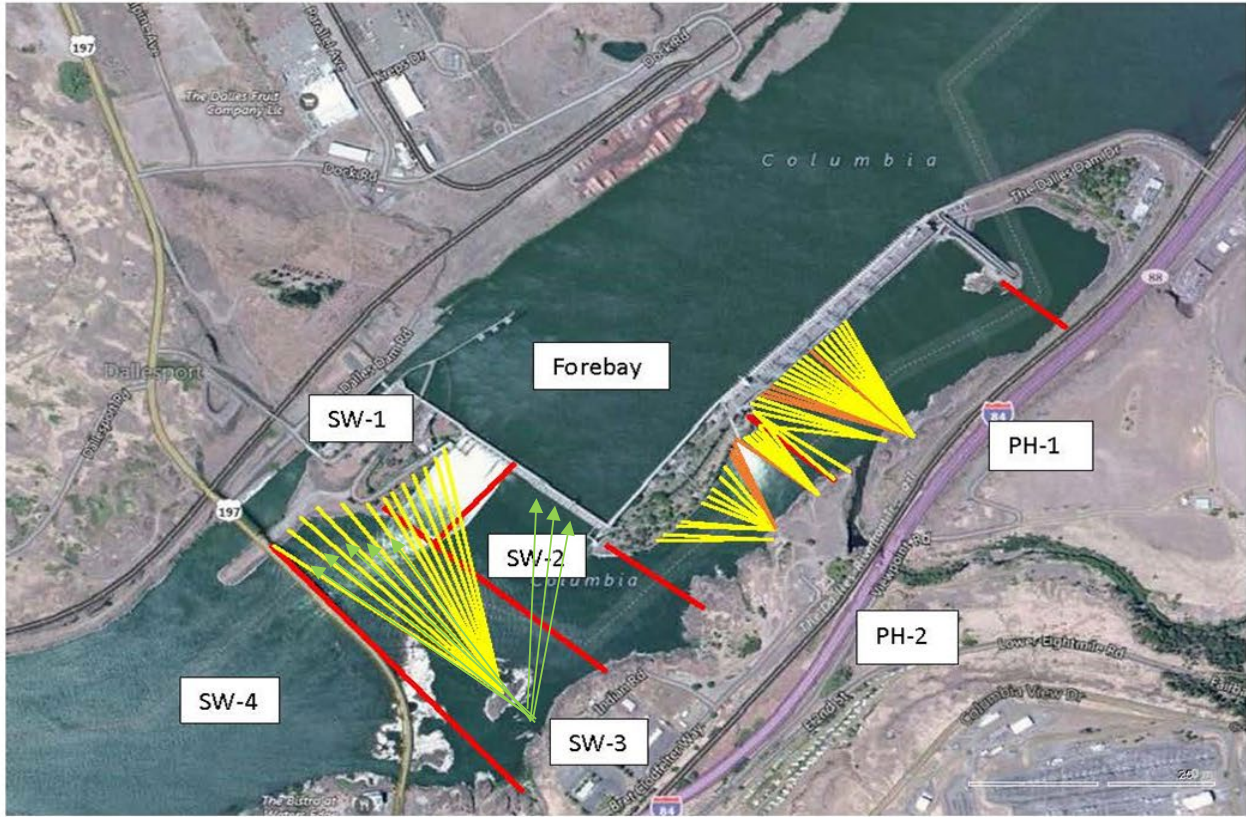
### Predators;

USDA hazing from boat and shore appears very effective w/ addition of continual hazing from project, comparatively small numbers of gull and pelican foraging  
Sea Lions not observed by fisheries yet to date, bird hazers see them ~once a week. Possible Stellars.

### Research/Construction/Contractors:

Fish counting contractors (Four Peaks) on site and counting.  
For fish count data refer to; [FPC FISH COUNTS](#)  
AWS backup - All deficiencies corrected by contractor. Compiling list for follow on contract items and spare parts.  
Transformer replacement - T3 ongoing. Testing after august completion. Date to be determined  
PSMFC weekly sampling for North Wasco County PUD continues. Refer to PCMFC weekly sample report.  
PITAGS north and east fishladder data collection at count stations continues.  
Pikeminnow dam angling - 521 Pikeminnow week of June 23. Total 953 YTD. **Bass/Walleye release continues, unlike dam angling conducted at PUD projects.**  
ODFW monthly fishway inspections ongoing. No problems found.  
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 started 6/4. Six of 18 nights of adjustment completed.  
Lamprey trapping - hoist system successfully installed. Low catch rates to date.  
Fish unit breaker replace.- Fish units returned to service. Substantial cleanup likely next winter. Awaiting schedule from contractor.  
Fish unit rehab - Ongoing for phase 1A.


Approved by: Mike Colesar acting for Ron Twiner  
Operation Project Manager The Dalles Dam



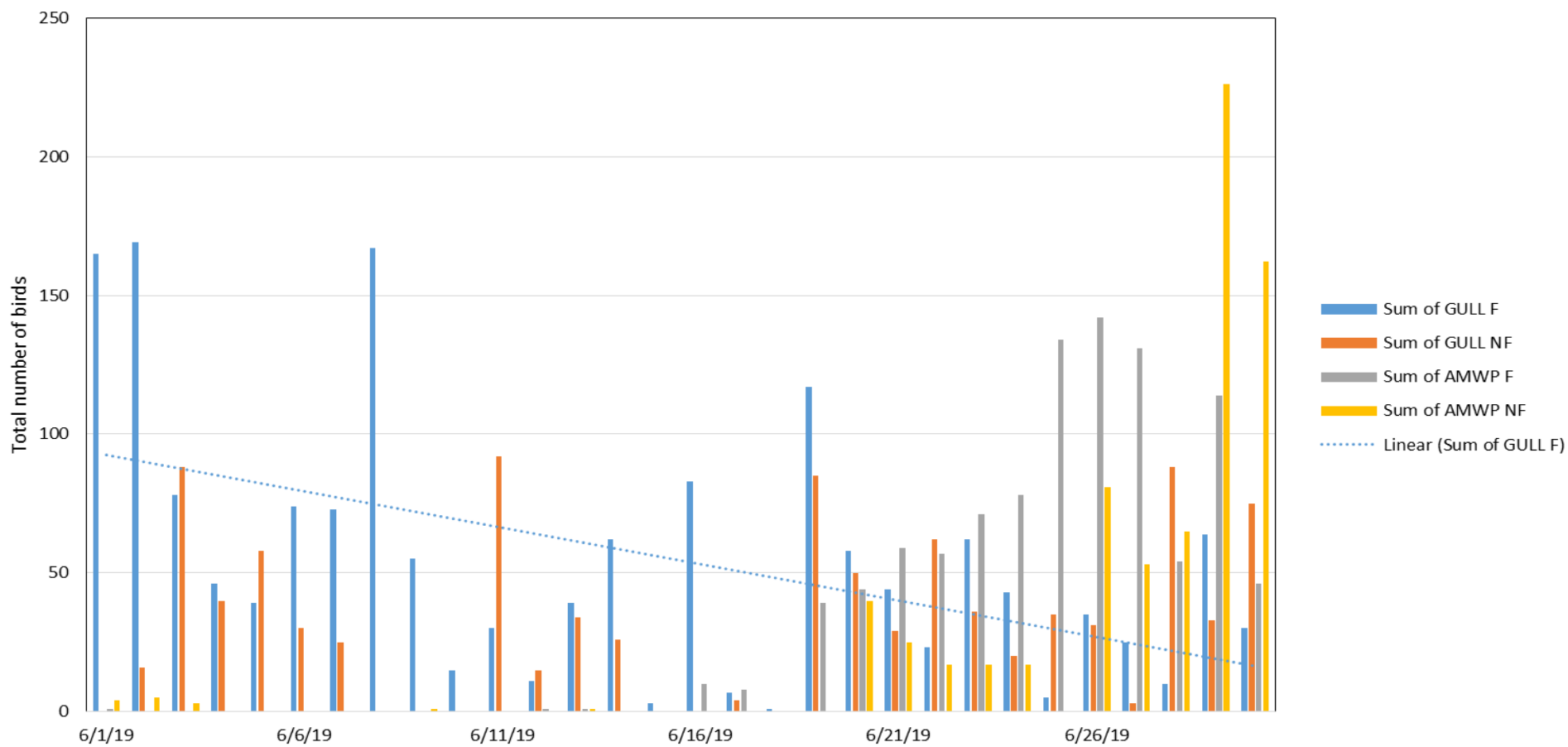
Red lines = avian zones

Yellow lines = current wires

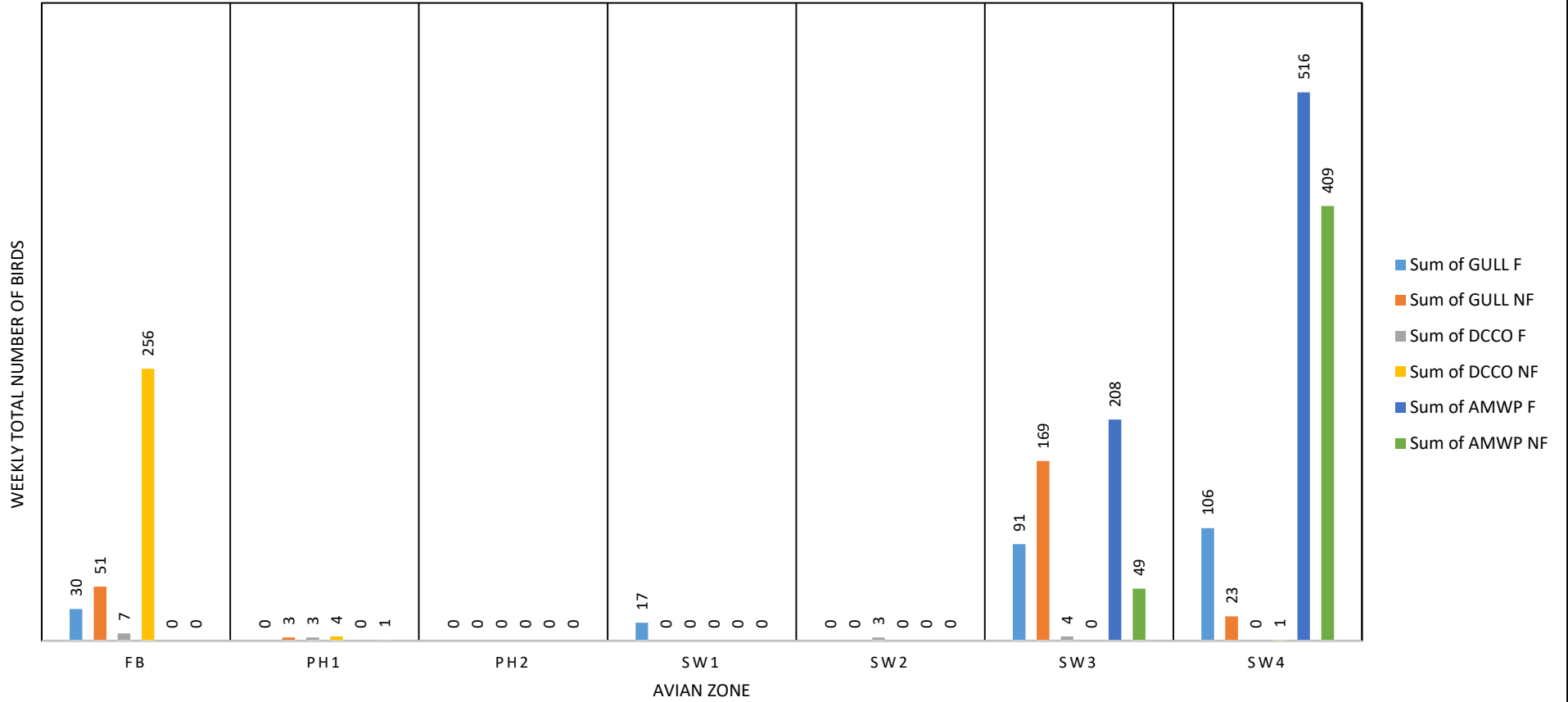
Orange lines = down or missing wires


Additional avian lines installed 9/2018

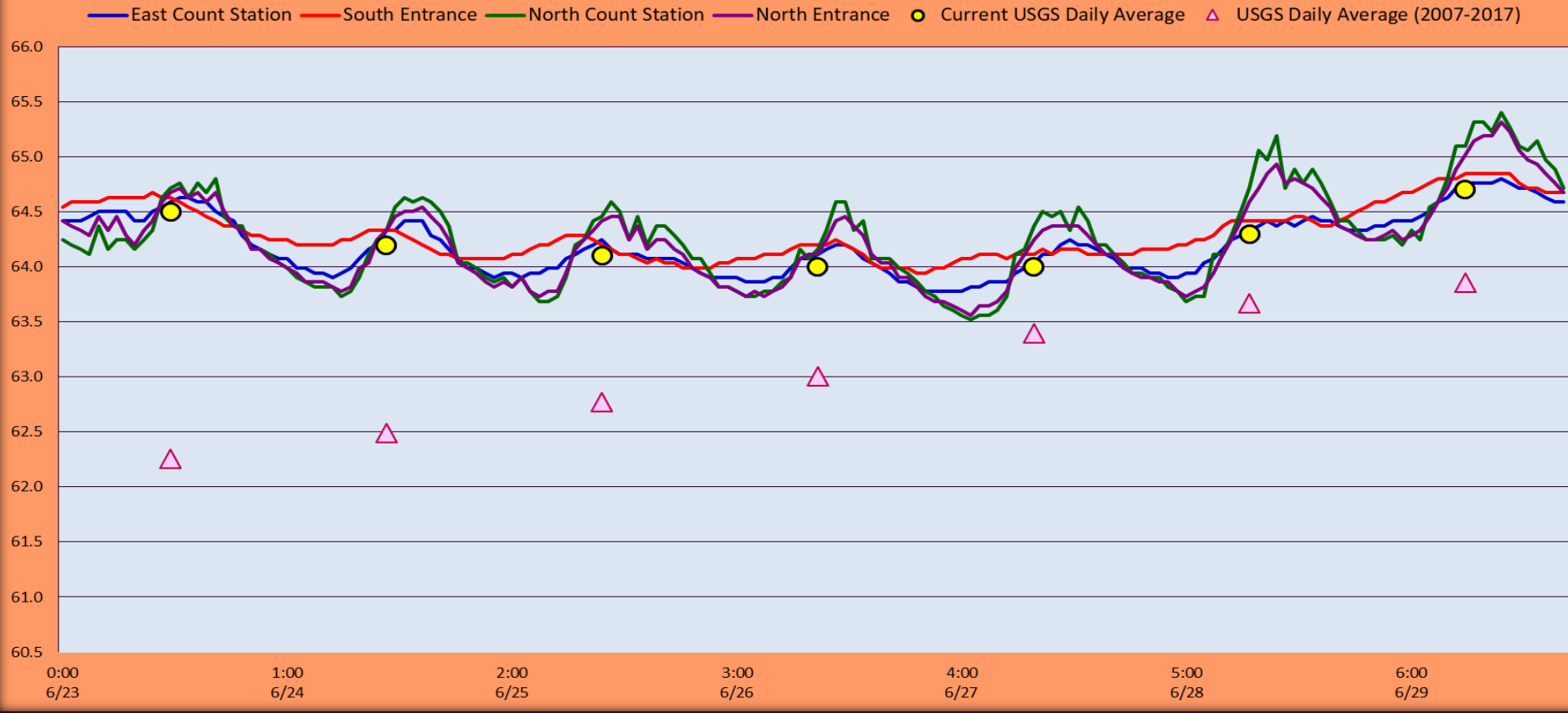
Foraging GULLS vs AMWPs



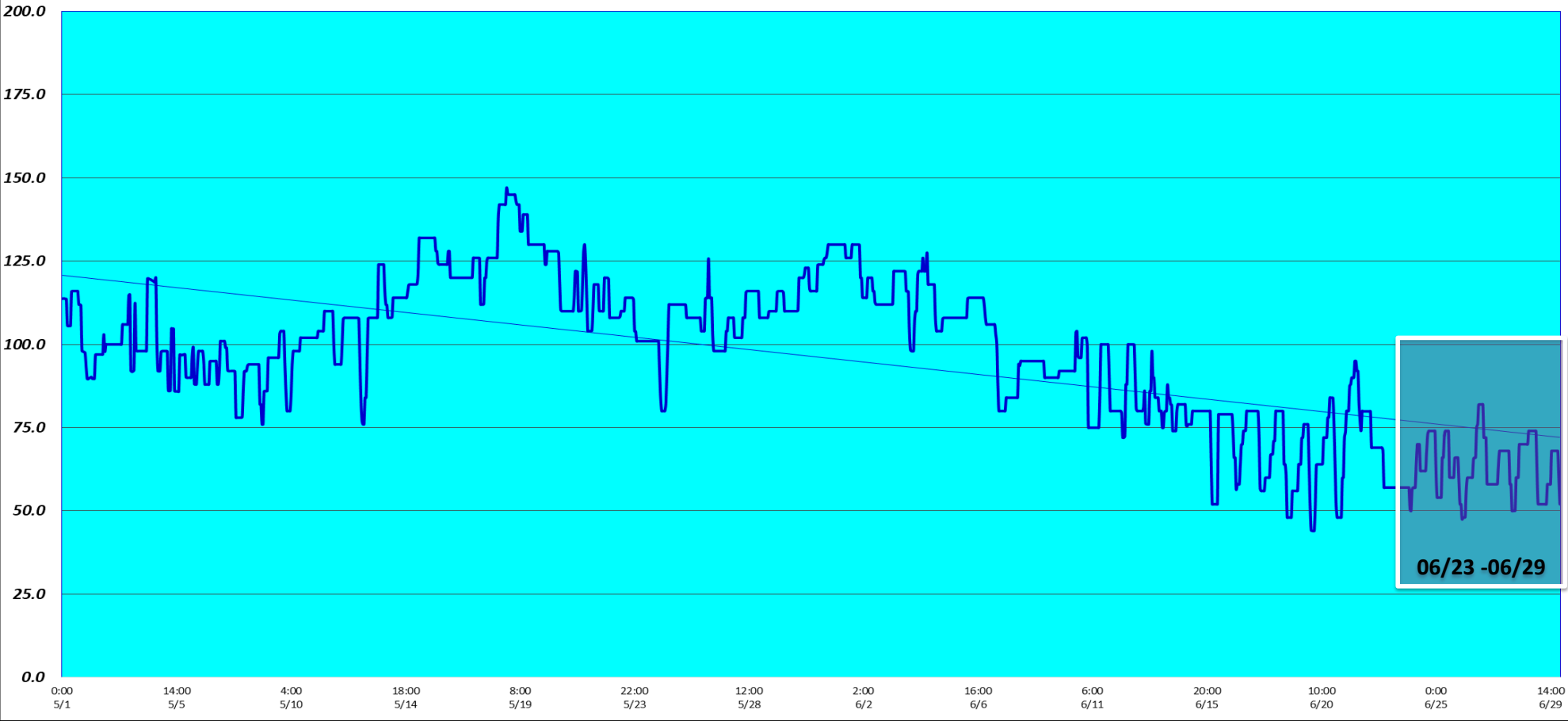
## AVIAN PREDATORS BY ZONE 06/23-06/29



# The Dalles Dam Fish Ladder/River Temperatures



# Spill KCFS



		USGS:
Secchi:		Temperatures
6/23	4.0	Sun 64.5
6/24	4.0	Mon 64.2
6/25	4.0	Tue 64.1
6/26	4.0	Wed 64.0
6/27	5.0	Thurs 64.0
6/28	5+	Fri 64.3
6/29	5+	Sat 64.7
	4.2	AVG 64.3

June

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

SCADA INSPECTION  
Out of criteria  
Lamprey passage modifications  
Data omitted

Date:	North Ladder Entrance		East Ladder											
			East Entrance- open					West Entrance			South Entrance			
	Differential	N1 Depth	Differential	E1 Depth	E2 Depth	E3 Depth	JP 6	Differential	W1	W2	W3	Differential	S1	S2
6/23			1.3		13.5	13.5	10.8	1.2	8.6	8.6		1.5	8.4	8.4
	1.2	10.0	1.3		13.5	13.5	10.8	1.2	8.6	8.6		1.4	8.5	8.5
	1.3	10.0	1.4		13.5	13.5	11.0	1.3	8.4	8.4		1.5	8.3	8.3
6/24			1.6		13.5	13.5	11.9	1.5	8.4	8.4		1.5	8.5	8.5
	1.3	10.0	1.6		13.5	13.5	11.4	1.5	8.4	8.4		1.6	8.3	8.3
	1.2	10.0	1.5		13.6	13.6	11.5	1.4	8.3	8.3		1.5	8.4	8.4
6/25			1.7		13.5	13.5	11.8	1.5	8.3	8.3		1.6	8.3	8.3
	1.3	10.0	1.5		13.5	13.5	12.3	1.4	8.4	8.4		1.6	8.3	8.3
	1.3	9.9	1.6		13.5	13	11.3	1.4	8.4	8.4		1.5	8.3	8.3
6/26			1.4		13.4	13.5	11.5	1.4	8.2	8.2		1.6	8.3	8.3
	1.3	9.9	1.6		13.5	13.5	11.3	1.4	8.4	8.4		1.5	8.3	8.3
	1.4	10.0	1.6		13.6	13	12.8	1.5	8.3	8.3		1.7	8.3	8.3
6/27			0.7		13.6	13.6	11.5	0.6	10.3	10.3		0.6	12.0	12.1
	1.3	10.1	1.3		13.5	13.5	11.5	1.4	8.3	8.3		1.5	8.5	8.5
	1.3	10.0	1.6		13	13	11.9	1.5	8.3	8.3		1.5	8.4	8.6
6/28			1.4		12.9	13.0	10.7	1.4	8.3	8.3		1.5	8.5	8.5
	1.3	10.0	1.5		13	13	11.3	1.4	8.3	8.3		1.5	8.5	8.5
	1.4	10.0	1.5		13.4	13.5	11.5	1.4	8.3	8.3		1.5	8.4	8.4
6/29			1.4		13	13.1	11	1.4	8.3	8.3		1.4	8.5	8.5
	1.3	9.9	1.4		13	12.9	10.5	1.3	8.5	8.5		1.5	8.5	8.5
	1.3	10.1	1.6		13	12.9	11.6	1.6	8.3	8.3		1.5	8.5	8.5
<b>AVG:</b>	<b>1.3</b>	<b>10.0</b>	<b>1.5</b>		<b>13.3</b>	<b>13.3</b>	<b>11.4</b>	<b>1.4</b>	<b>8.4</b>	<b>8.4</b>		<b>1.5</b>	<b>8.4</b>	<b>8.4</b>

**Fishways are inspected twice daily plus one SCADA inspection.**





Cormorants foraging increase near east ladder exit. Hazing efforts increased.