

The Dalles Dam Fishway Status Report

06/23/19

Inspection Period: June 16 - June 22, 2019

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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The Dalles Dam	Inspections OOC	Criteria Limit	Total Number of Inspections: 23	Temperature: 64.1 °F
			Comments: High shad numbers passing.	Secchi: 4.1 feet
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'	1.3	
Entrance weir N1	0	depth (≥ 8')	10.0	
Entrance weir N2	0	Closed		
PUD Intake differential	0	≤ 0.5'		
EAST FISHWAY				
Exit differential	0	≤ 0.5'		
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' shad passage criteria	
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	2.32 fps on 6/19; range 1.72 fps at MU1, to 2.69 fps at MU4	
Transportation channel velocity	0	1.5 - 4 fps	2.49 fps on 6/19.	
North channel velocity	0	1.5 - 4 fps	2.36 fps on 6/19.	
South channel velocity	0	1.5 - 4 fps	2.94 fps on 6/19.	
West entrance differential	0	1.0' - 2.0'		
Entrance weir W1	0	depth (≥ 8')		
Entrance weir W2	0	depth (≥ 8')		Out of Calibration 6/19, not out of criteria. TR in place.
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')		
JUVENILE PASSAGE				
Sluiceway operation	0	Units 1, 8, 16;	MU-18 scheduled maintenance, return 6/24/19	
Turbine trashrack drawdown	0	<1.5', biwkly	Gatewells inspection 6/19/19. Live smolts, and shad in most wells, monitoring water temps.	
Spill volume/pattern	0	None	Gates 1 through 8 open to flex spill pattern. Collecting data from dials atop spill gates.	
Turbine Unit Priority	0	per FPP	MU 5 and 6 OOS for maintenance	
Turbine 1% Efficiency	0	per FPP		

OTHER ISSUES:

Operation:

East & North fish ladders in full operation.
Sluiceway open with 6 gates. MU16 gate used during MU18 outage.
Spillway open for juvenile passage.
Smolt mortalities found in gatewells 3-3 (1), 18-1 (5), 18-1(3), 2-1(1). Memo provided to FPOM.
Spill KCFS staying below 100 total. North fish passage increasing.

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.
MU17 & MU18 OOS 0001 6/10/2019 - 1700 6/20/2019 for Annuals

Maintenance:

East count station window/crowder brush repaired and functioning. Looking into improvements for long term reliability.
Calibration check 6/19: West entrance PLC setpoint inaccuracy, not OOC.
Collection channel dewatering pumps 5 and 6 rehab in progress.
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.
North trashrack rake out for repair. Returned ~06/20

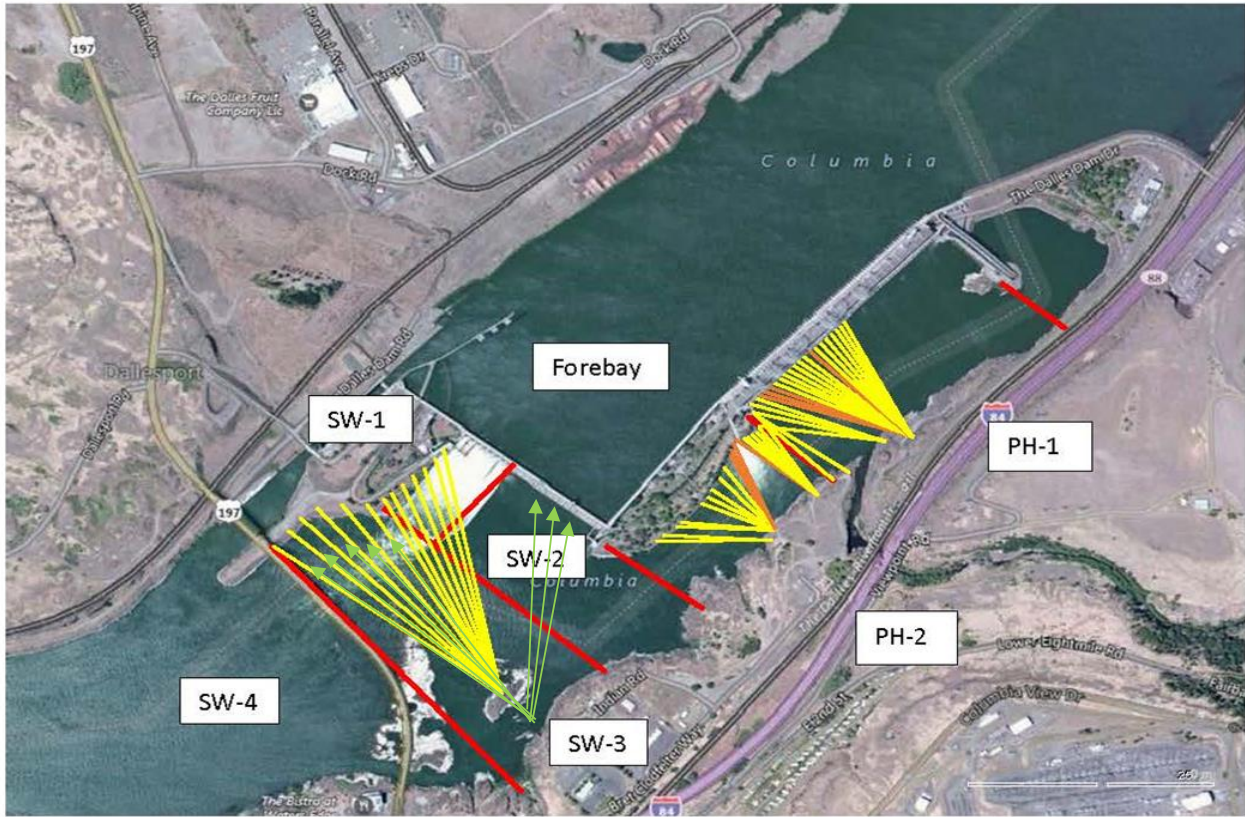
Predators;

USDA hazing from boat and shore appears very effective w/ addition of continual hazing from project, increasing numbers of cormorant, gull and pelican foraging.
Sea Lions not observed by fisheries yet to date. USDA hazers see them weekly near boar ramp. Possibly a Stellars.

Research/Construction/Contractors:

Forebay temperature monitoring commenced for second and final year of testing
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.
Lamprey minor mods - Planning for potential LPS in junction pool.
Univ of Idaho lamprey radiotelemetry - Second season of lamprey passage night flow started 6/4. Total of 18 nights of adjustment planned.
Lamprey trapping - hoist system installed, thanks to ingenuity of project engineer and execution of Mechanic. Lifts being utilized successfully
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

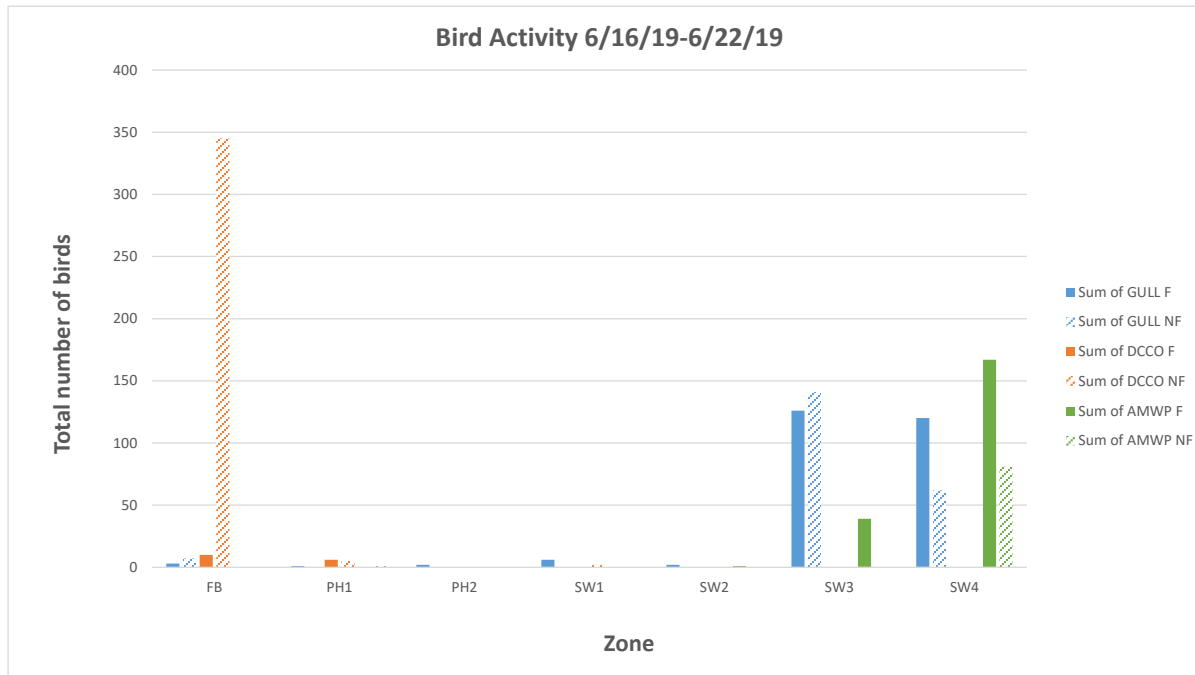


Red lines = avian zones

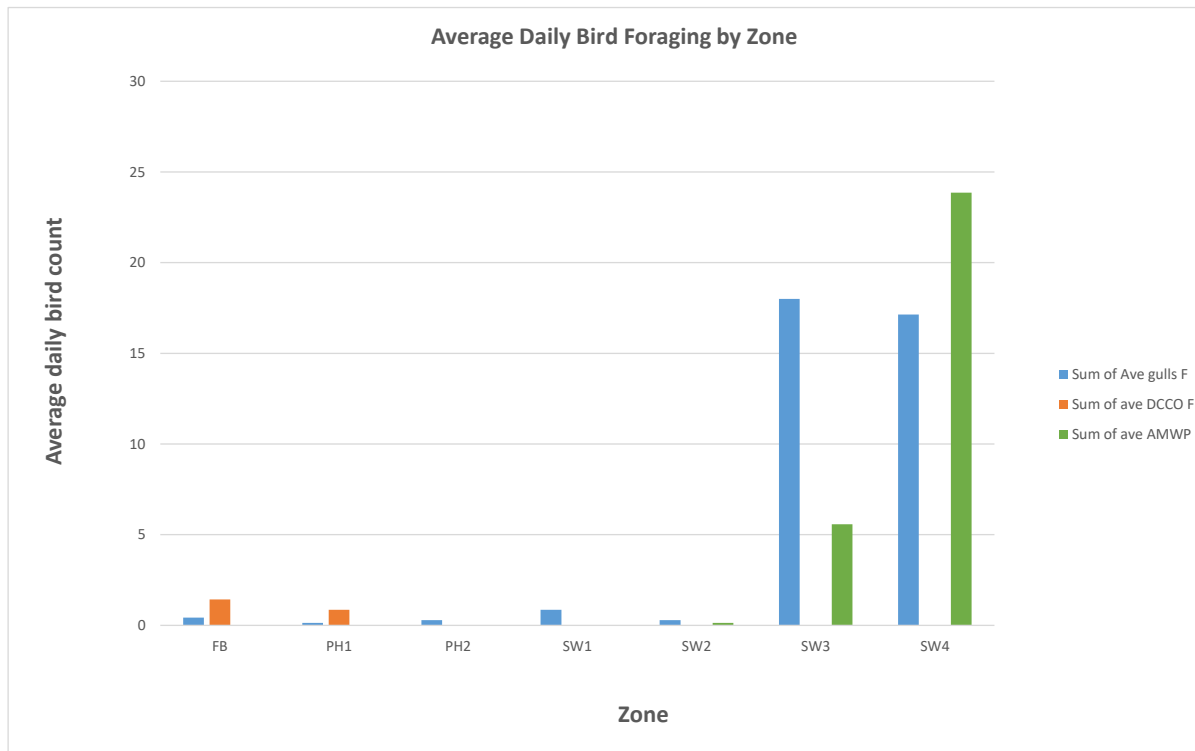
Yellow lines = current wires

Orange lines = down or missing wires

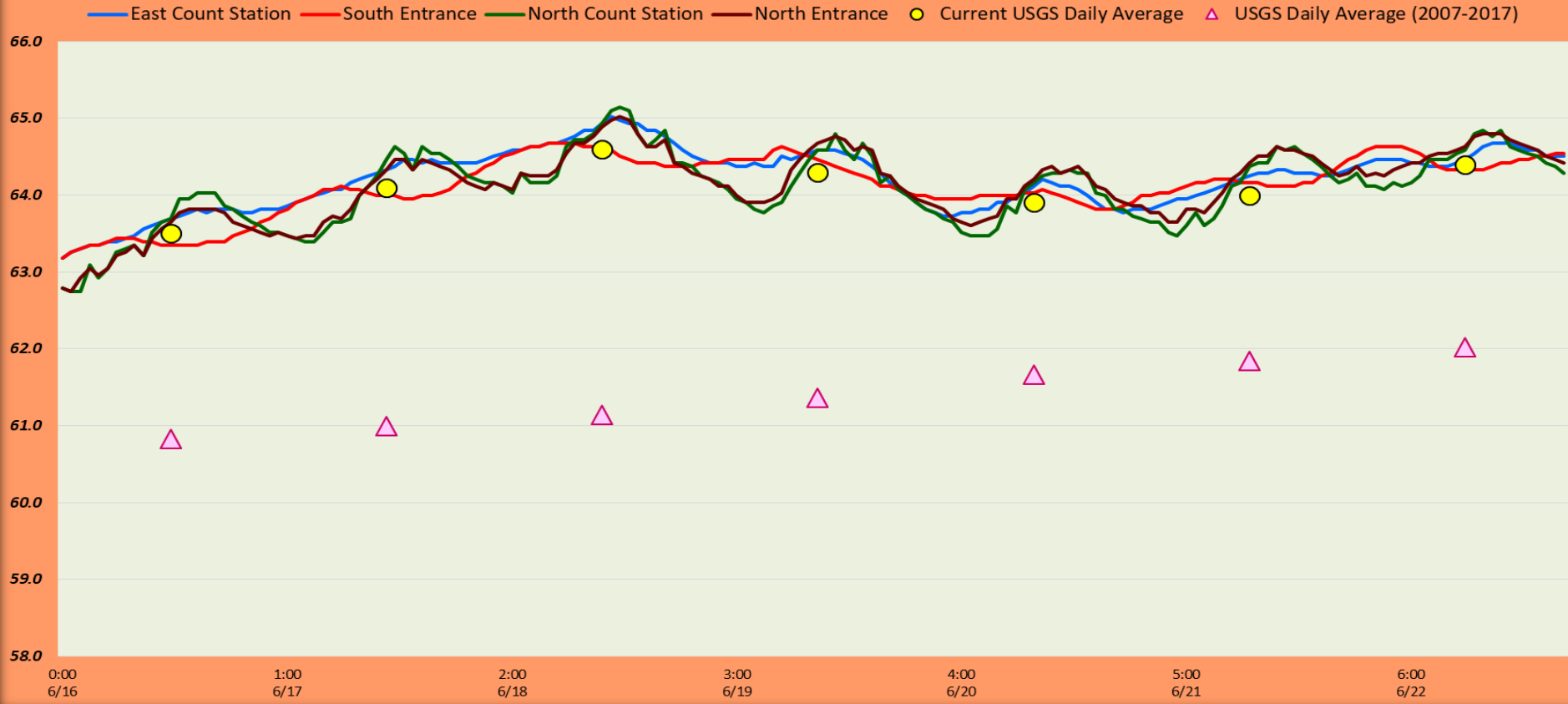
→ Additional avian lines installed 9/2018



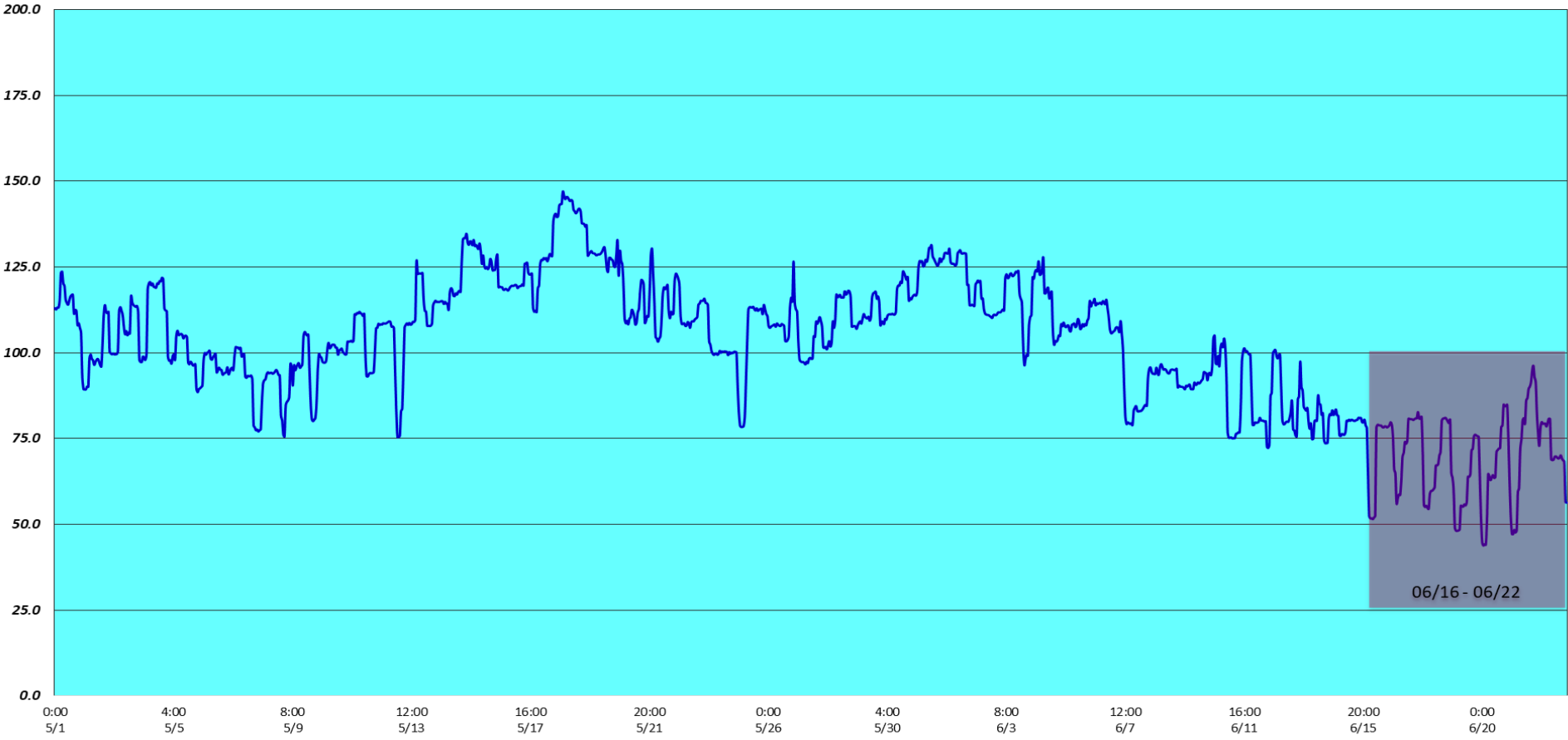
F= foraging
 NF= not foraging
 GULL= gull species
 DCCO= double-crested cormorant
 AMWP= American white pelican



The Dalles Dam Fish Ladder/River Temperatures



Spill KCFS



		USGS:
Secchi:		Temperatures
6/16	4.5	Sun 63.5
6/17	4.0	Mon 64.1
6/18	4.0	Tue 64.6
6/19	4.0	Wed 64.3
6/20	4.0	Thurs 63.9
6/21	4.0	Fri 64.0
6/22	4.0	Sat 64.4
	4.1	AVG 64.1

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
6/16			1.6		13.0	13.0	12.8	1.5	9.1	9.1		1.5	9.0	9.0
	1.5	10.0	1.5		13.1	13.1	12.7	1.4	9.0	9.0		1.5	8.9	9.1
	1.3	10.0	1.6		13.1	13.0	13.1	1.4	8.5	8.5		1.5	9.0	8.9
6/17			1.5		13.4	13.4	12.8	1.4	8.5	8.5		1.4	9.0	9.0
	1.3	10.0	1.6		13.4	13.4	12.8	1.4	8.6	8.6		1.5	9.0	9.0
	1.3	10.0	1.6		13.5	13.5	13.3	1.6	8.5	8.5		1.5	9.0	9.0
6/18			1.4		13.5	13.5	11.3	1.3	8.6	8.6		1.4	8.9	8.9
	1.3	10.0	1.5		13.5	13.5	11.7	1.3	8.5	8.5		1.4	9.0	9.0
	1.3	10.0	1.5		13.5	13.6	11.9	1.4	8.5	8.5		1.4	9.0	9.0
6/19			0.7		14.0	14.0	12.3	0.7	10.0	10.0		0.7	12.4	12.5
	1.3	9.9	1.4		13.4	13.5	11.1	1.2	8.4	8.4		1.3	9.1	9.0
	1.3	10.0	1.6		13.5	13.4	11.6	1.4	8.4	8.4		1.3	9.1	9.0
6/20			0.7		14.0	14.0	13.3	0.7	10.6	10.6		0.6	12.6	12.6
	1.3	10.0	1.4		13.3	13.3	11.4	1.3	8.7	8.7		1.5	8.7	8.7
	1.3	10.0	1.6		13.6	13.6	12.5	1.5	8.4	8.4		1.5	8.8	8.8
6/21			1.3		13.5	13.6	11.2	1.3	8.4	8.4		1.3	9.1	9.1
	1.3	10.0	1.5		13.6	13.5	11.4	1.5	8.6	8.6		1.6	8.5	8.6
	1.3	10.0	1.6		13.5	13.5	13.1	1.5	8.5	8.5		1.5	8.5	8.5
6/22			1.5		13.5	13.4	12.7	1.5	8.5	8.5		1.5	8.6	8.6
	1.3	10.0	1.5		13.6	13.6	13	1.4	8.5	8.5		1.5	8.5	8.5
	1.3	10.0	1.5		13.5	13.5	12.7	1.4	8.6	8.6		1.5	8.5	8.5
AVG:	1.3	10.0	1.5		13.4	13.4	12.3	1.4	8.6	8.6		1.5	8.9	8.9

Fishways are inspected twice daily plus one SCADA inspection.





DCCO taking chinook yearling at the east ladder exit.