

The Dalles Dam Fishway Status Report

07/06/19

Inspection Period: June 30 - July 6, 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: 22	Temperature: 65.4 °F
			Comments: High shad numbers passing.	Secchi: 4.2 feet
NORTH FISHWAY				
Exit differential	0	≤ 0.5'		
Count station differential	0	≤ 0.3'		
Weir crest depth	0	1.3' ± 0.1'		1.3' shad passage criteria.
Entrance differential	0	1.0' - 2.0'	1.3	
Entrance weir N1	0	depth (≥ 8')	9.7	
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	1	1.3' ± 0.1'	1.3' criteria to allow shad passage; 1.4	
Junction pool weir JP6	0	0.0		
East entrance differential	0	1.0' - 2.0'		
Entrance weir E1	0	No criteria	E1 effectively closed	
Entrance weir E2	0	depth (≥ 8')		
Entrance weir E3	0	depth (≥ 8')		
Collection channel velocity	0	1.5 - 4 fps	2.02 fps on 7/6; range 1.28 fps at MU12, to 2.61 fps at MU1	
Transportation channel velocity	0	1.5 - 4 fps	2.53 fps on 7/6.	
North channel velocity	0	1.5 - 4 fps	2.84 fps on 7/6.	
South channel velocity	0	1.5 - 4 fps	3.39 fps on 7/6.	
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')		
JUVENILE PASSAGE				
Sluiceway operation	0	Units 1, 8, 18;		
Turbine trashrack drawdown	0	<1.5', biwklly	Gateway inspection 7/04/19. Live smolts & shad in most wells; 1 smolt, 1 shad morts found	
Spill volume/pattern	0	None		
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 total. Units 1, 8 and 18
Spillway open with summer juvenile passage.
Spill below 100 kcfs= increase passage north.

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 overhaul.

Maintenance:

East count station window/crowder brush failed again. Planning for possible manual cleaning for remainder of season.
Calibration check 7/2: West entrance gates adjusted, all openings within criteria.
Collection channel dewatering pumps 5 and 6 rehab work remains. To be completed prior to Dec for dewatering.
Fishway automation parts purchase ongoing. Labor for assembly and install FY20.
Engineering evaluation of east fishway diffuser valve status to resume.
Spillway assessment (MRER) in progress. Spillway crane replace and spillgate 9 repair included. Prioritizing gates 1-9 as first for rehab.

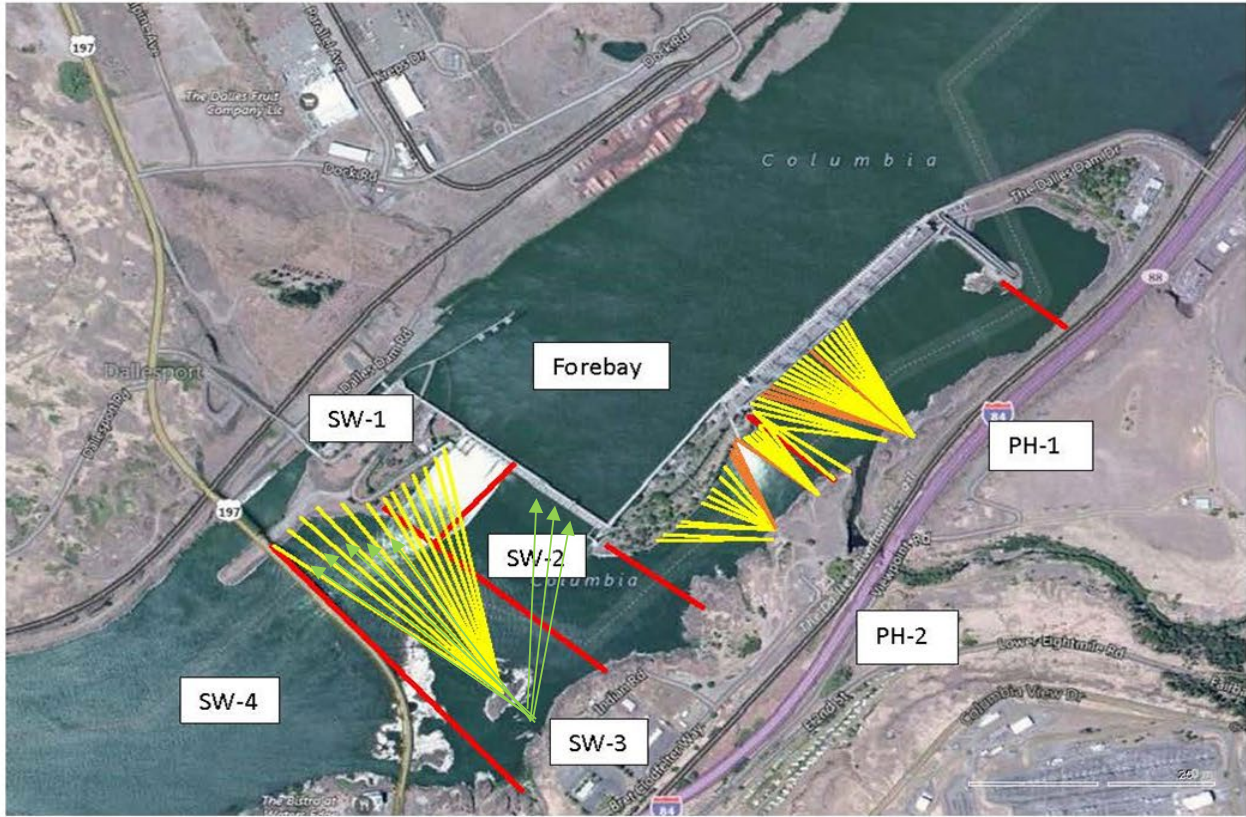
Predators;

USDA hazing from boat and shore.
TD fisheries contends Pelicans are targeting shad and dissuading gull foraging.
Sea Lions not observed from dam to date.

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 - 138 Pikeminnow week of 7/1. Total 1401 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. Awaiting planning meetings.
Univ of Idaho lamprey radiotelemetry - Second season of lamprey passage night flow started 6/4. 7 of 18 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



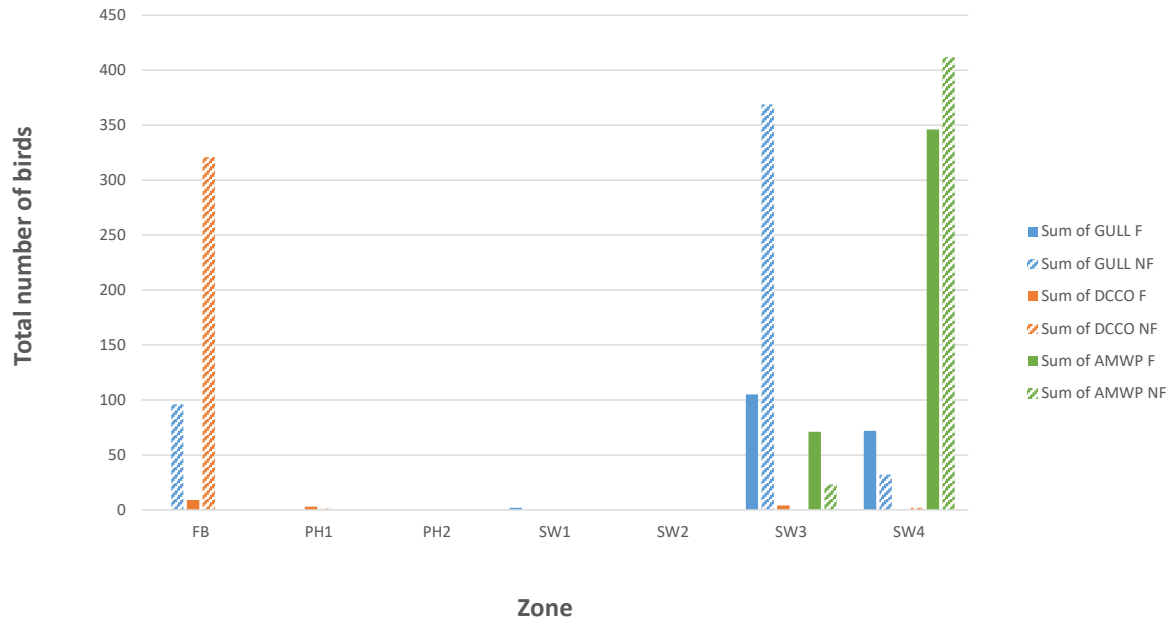
Red lines = avian zones

Yellow lines = current wires

Orange lines = down or missing wires

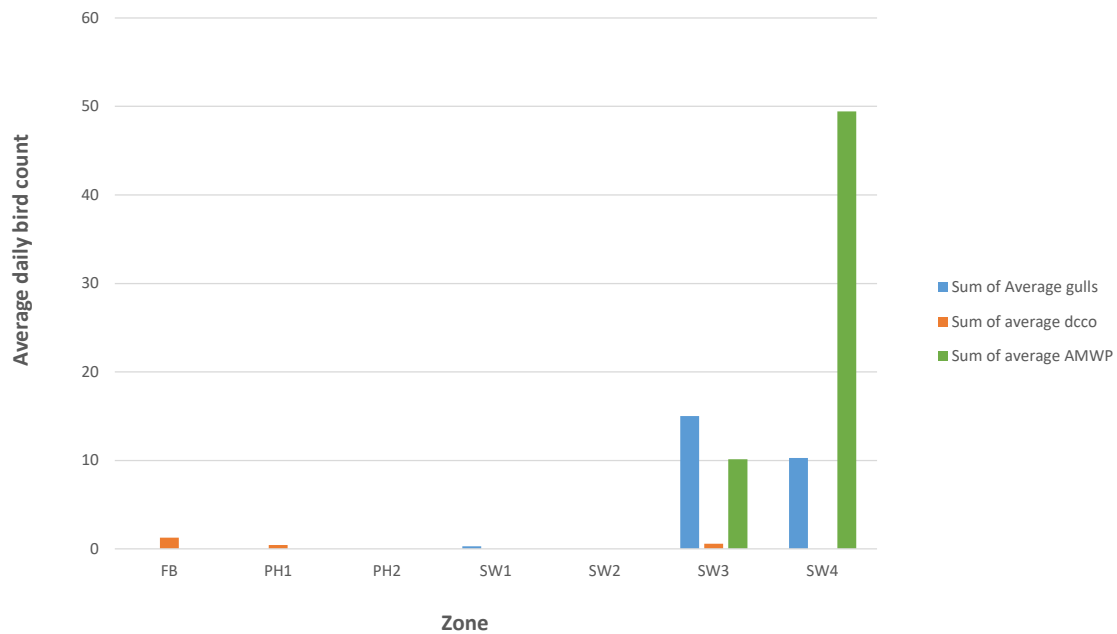
→ Additional avian lines installed 9/2018

Bird Activity 6/30/19-7/6/19

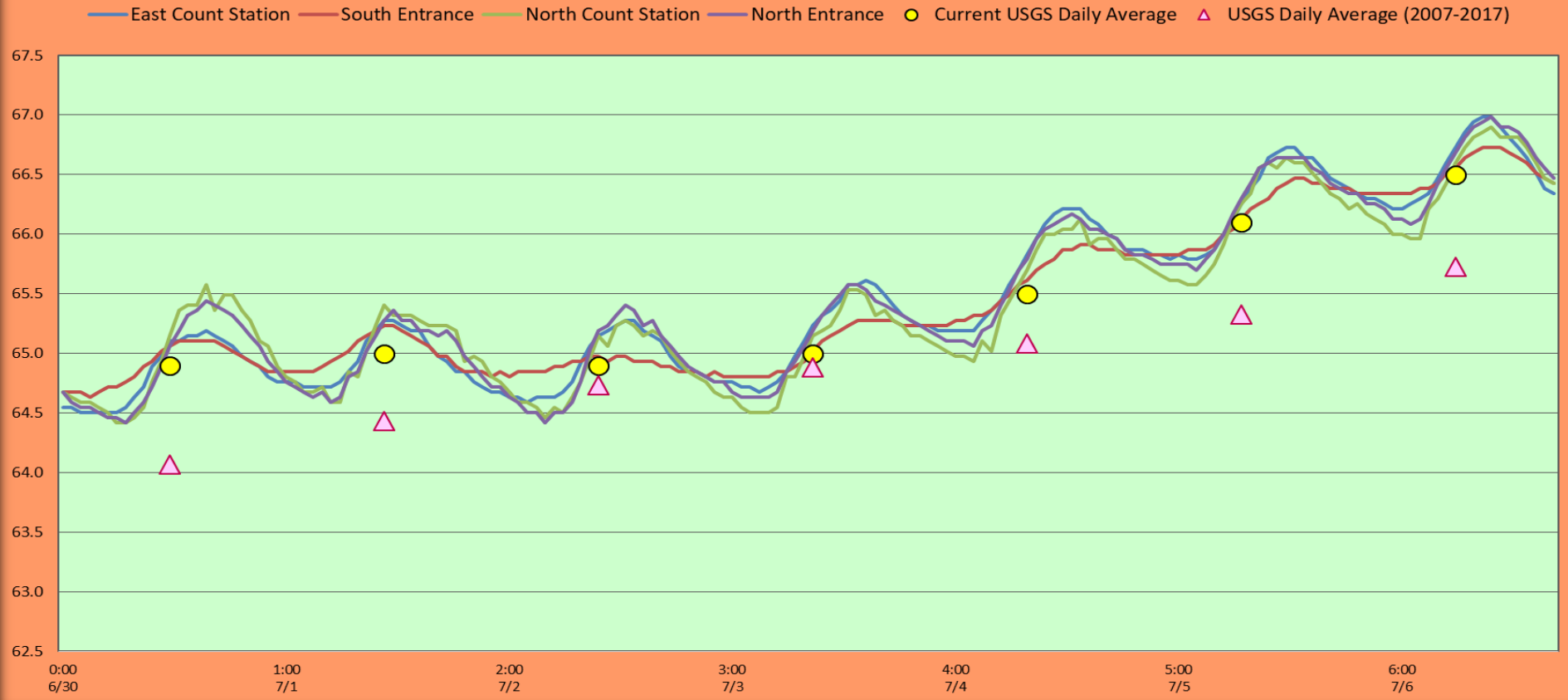


F= foraging
 NF= not foraging
 GULL= gull species
 DCCO= double-crested cormorant
 AMWP= American white pelican

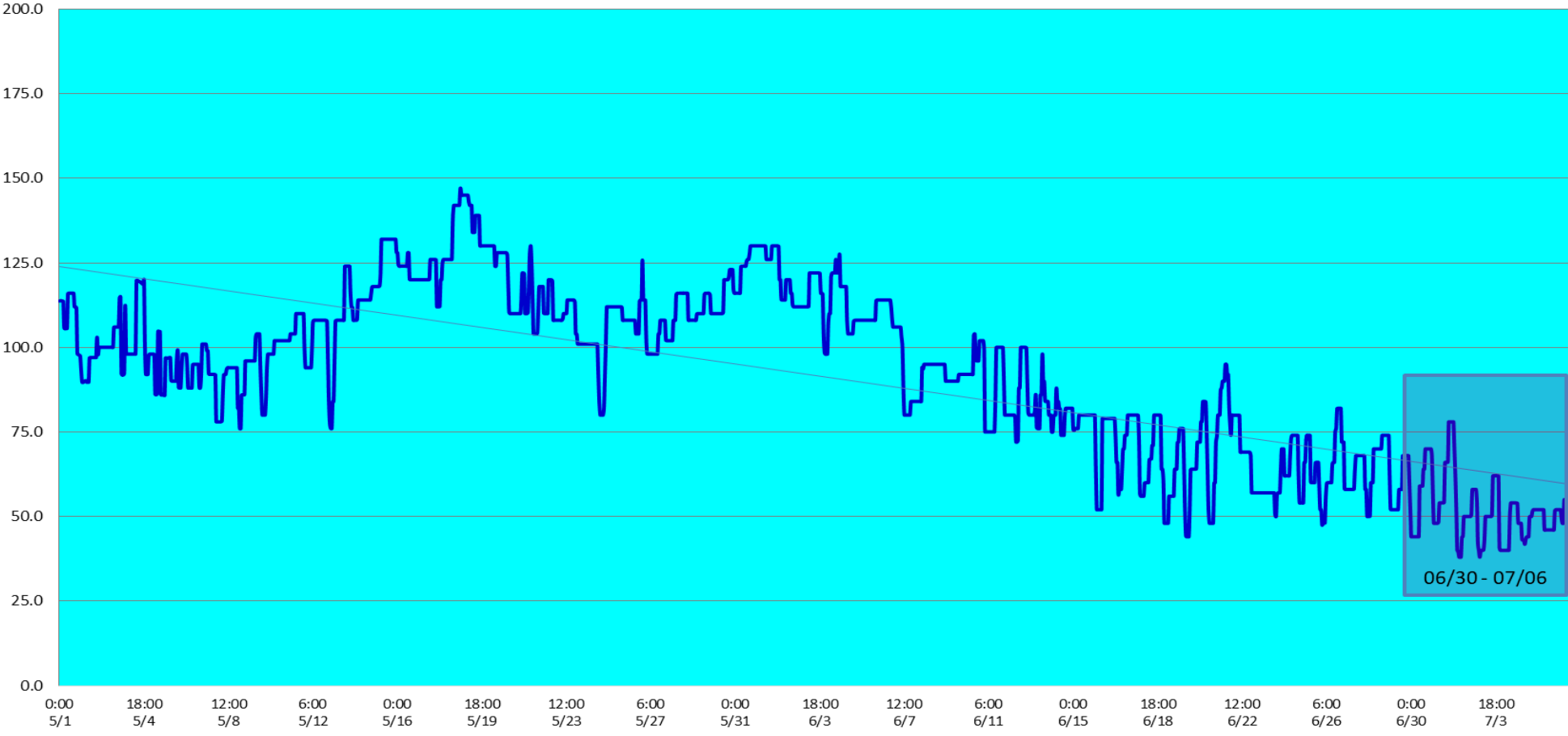
Average Daily Bird Foraging by Zone



The Dalles Dam Fish Ladder/River Temperatures



Spill KCFS



		USGS:
Secchi:		Temperatures
6/30	Sun	64.9
7/1	Mon	65.0
7/2	Tue	64.9
7/3	Wed	65.0
7/4	Thurs	65.5
7/5	Fri	66.1
7/6	Sat	66.5
	AVG	65.4

July

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
6/30			1.3		13.0	13.0	13.3	1.3	8.2	8.2		1.4	8.6	8.6
	1.3	9.9	1.5		12.4	13.0	11.0	1.4	8.0	8.0		1.5	8.6	8.5
	1.4	9.9	1.5		12.6	13.0	11.8	1.5	8.1	8.1		1.5	8.5	8.5
7/1			1.6		12.5	13.0	11.3	1.5	8.1	8.1		1.6	8.4	8.4
	1.2	9.8	1.5		12.6	13.0	11.3	1.5	8.0	8.0		1.6	8.4	8.4
	1.3	10.0	1.5		12.6	13.0	11.6	1.6	8.6	8.5		1.6	8.4	8.4
7/2			1.3		13.6	13.6	10	1.3	8.5	8.5		1.4	8.6	8.6
	1.2	9.9	1.4		13.4	13.4	10.1	1.3	8.6	8.6		1.4	8.5	8.5
	1.2	10.0	1.5		13	13	11.6	1.4	8.1	8.1		1.4	8.6	8.6
7/3			0.6		14.0	14.0	10.0	0.6	10.0	9.9		0.7	11.4	11.4
	1.4	9.4	1.4		13.1	12.9	10.2	1.4	8.3	8.3		1.4	8.6	8.6
	1.2	9.9	1.4		13.6	13.6	10.1	1.4	8.3	8.2		1.5	8.4	8.4
7/4			1.5		13.5	13.4	9.7	1.3	8.2	8.2		1.4	8.5	8.5
	1.4	9.5	1.4		13.7	13.7	10	1.3	8.3	8.3		1.4	8.5	8.5
	1.4	9.5	1.4		13.4	13.3	10.5	1.5	8.2	8.2		1.4	8.6	8.6
7/5			1.4		12.9	12.9	11.4	1.4	8.3	8.3		1.4	8.6	8.6
	1.4	9.4	1.4		13.1	12.9	10.2	1.4	8.3	8.3		1.4	8.6	8.6
	1.4	9.5	1.4		13	13	10.5	1.4	8.4	8.4		1.4	8.6	8.6
7/6			1.4		13	13.1	10.2	1.4	8.2	8.2		1.5	8.5	8.5
	1.4	9.4	1.6		12.7	12.7	10.2	1.4	8.4	8.4		1.4	8.6	8.6
	1.4	9.5	1.5		12.9	12.9	10.6	1.4	8.3	8.3		1.4	8.5	8.5
AVG:	1.3	9.7	1.5		13.0	13.1	10.6	1.4	8.3	8.3		1.5	8.5	8.5

Fishways are inspected twice daily plus one SCADA inspection.